INTERNET BASICS CURRICULUM AND INSTRUCTOR'S MANUAL

BBRI Digital Literacy Program

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State of Rhode Island and Providence Plantations
DEPARTMENT OF EDUCATION
Shepard Building
255 Westminster Street
Providence, Rhode Island 02903-3400

Deborah A. Gist
Commissioner

Dear Adult Educator,

Adult education in Rhode Island is experiencing many technology-related changes. More than ever, students need basic digital literacy skills to access computer-based learning and testing in order to achieve successful outcomes in a 21st century world. College and career readiness standards for adult education, and the demands of 21st century jobs, make competence in using technology **absolutely essential!**

The Office of Adult Education at the Rhode Island Department of Education (RIDE) is highly invested in supporting effective technology integration throughout RI. Our adult education programs will play a key role in bridging the digital divide by helping students to develop and strengthen fundamental computer skills, and by integrating and modeling digital technologies throughout adult education.

With Workforce Investment Act Incentive Grant funds, the *RIDE Adult Education Technology Initiative* has been established to support technology infrastructure and capacity building in adult education programs. To aid implementation of this initiative, a *Technology Point Person* (TPP) now exists in each adult education program.

The TPP's leadership will help programs, individual staff members and students to develop comfort and proficiency with technology, and will help colleagues on the path toward achieving Rhode Island's Practitioner Technology Standards.

By partnering with Broadband RI (BBRI), all TPPs will receive training in teaching the BBRI Internet Basics Curriculum, thereby supporting development of instructors' basic technology skills and competencies. Building on our partnership with BBRI, an initiative of the RI Office of Digital Excellence, RIDE expects that TPPs, adult education programs and students will continue to benefit from the high quality training, materials, and resources developed through BBRI's Digital Literacy Program, so that the goals of the *RIDE Adult Education Technology Initiative* can be fully realized

We hope you find great value in your BBRI Digital Literacy training experience.

Sincerely,

Dr. Philip Less
Administrator, Adult Basic Education and GED Programs

Overview of the BBRI Digital Literacy Program

Program Overview

Funded by the State Broadband Data and Development Grant Program (http://www2. ntia.doc.gov/SBDD as part of the American Recovery and Reinvestment Act of 2009) the Broadband Rhode Island (http://broadband.ri.gov) Digital Literacy Program is a collaborative, community-based technology education program that aims to build the capacity of digital literacy instructors throughout Rhode Island.

By providing technical assistance to individuals and organizations who serve groups who are especially likely to be offline, BBRI aims to build a self-sustaining network of instructors, class materials, and training locations that will help Rhode Island close the digital divide. The Digital Literacy Program is one of several BBRI programs that all share the same core mission: *to create new opportunities by expanding broadband use and digital literacy across Rhode Island*. BBRI and its partners believe that this mission includes ensuring that all Rhode Islanders possess at least basic Internet skills that can be applied in their personal and work contexts. To that end, a wider set of resources includes the following:

- This Internet Basics Curriculum and Instructor Manual, which provides a "roadmap" that can be used in most contexts to train individuals with little or no experience using the Internet.
- An Instructors' Workshop Course designed to guide and empower instructors to teach basic digital literacy skills to others in a wide variety of contexts.
- A digital literacy website and other resources that help organizations connect with the populations they serve, with BBRI, and with each other.

As the program network grows and develops, BBRI will continue to provide additional assistance and leadership to partner organizations and program participants. For the latest information about the Digital Literacy Program and other BBRI initiatives, please visit http://broadband.ri.gov or contact BBRI at 401-278-9100.

About This Instructor's Manual

Manual Overview

This Instructor's Manual is designed to be an easy-to-use "turnkey" curriculum and class "roadmap" that can be delivered by experienced educators or those who have taken the BBRI Instructors' Workshop Course. It was designed primarily for use in informal or semi-formal educational settings such as those in libraries, community centers, not-for-profit agencies, and similar organizations. Due to persistent changes in Internet Websites and other curricular content, this manual is meant to be a "living document" that will be regularly edited and supplemented by BBRI and Program participants to ensure currency and quality. During the fall 2011, BBRI piloted the structure and techniques contained in this manual with the following four partner organizations:

- Cranston Public Library
- Opportunities Industrialization Center (OIC)/Center for the New Economy
- Providence Community Library (PCL)
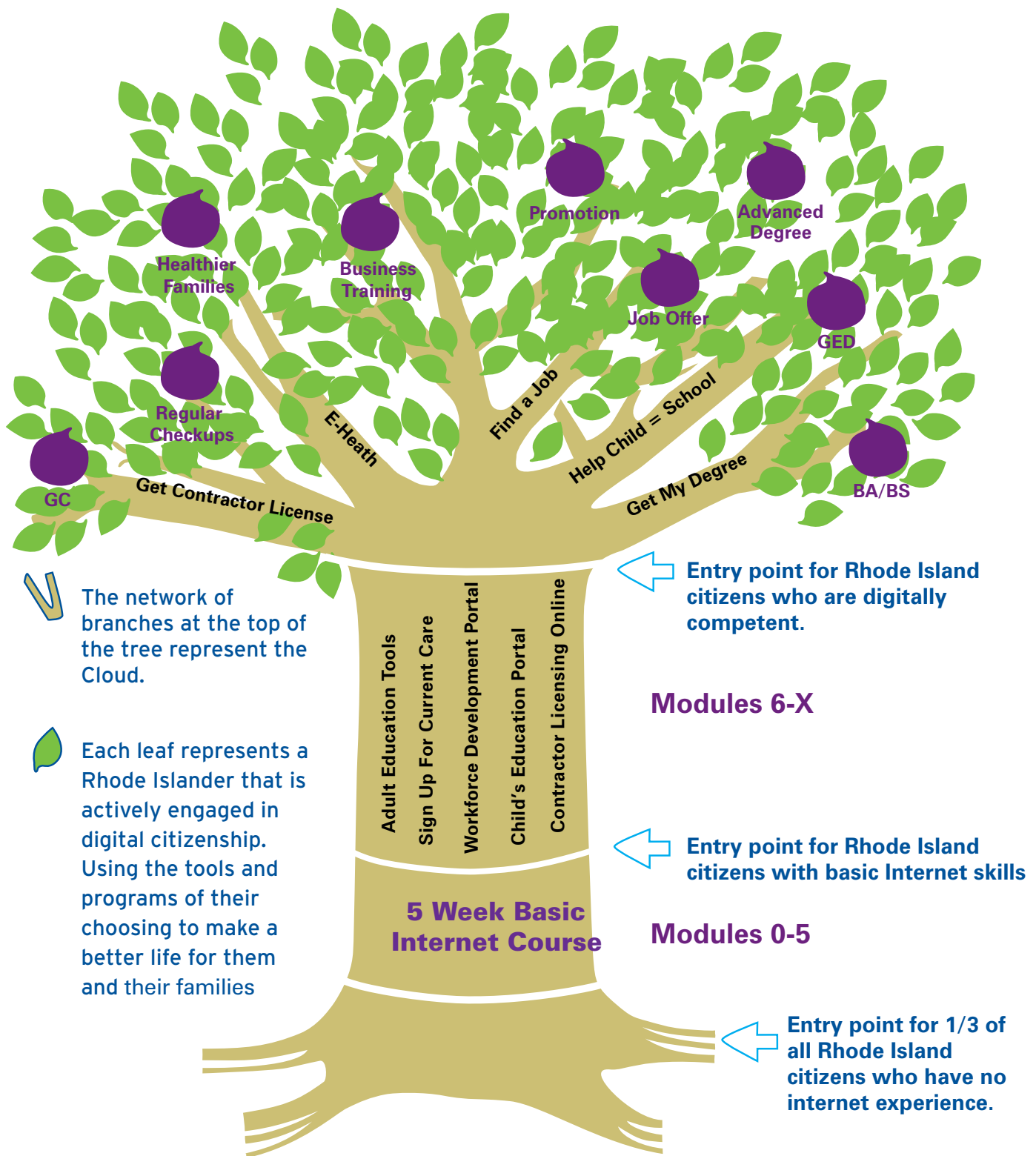- Providence Housing Authority (PHA)

In addition to these organizations and their respective staffs, a select number of individuals from other community organizations volunteered their time to test a pilot Instructors' Workshop Course in early October 2011. BBRI sincerely appreciates the support that these organizations and individuals gave to this initial phase of the program.

Content

Developed with an eye towards the instructor's ease-of-use, the novice Internet user's needs and the typical training contexts found in community organizations throughout Rhode Island, this manual offers numbered sequential modules and relevant supplementary materials that help to teach basic Internet skills to those who have little or no experience using the Internet. Each module contains a lesson plan or plans that include an outline, vocabulary terms, a suggested step-by-step "roadmap" and other materials needed to achieve the key objectives of the class. The entire course is designed to be delivered over five classes, each two hours long at weekly intervals but this structure can be adjusted according to users' needs.

Partner organizations and other users of this manual are welcome to schedule their classes in a manner that best serves their organization.

ECONOMIC DEVELOPMENT INTO AN INTERNET WORLD INFOGRAPHIC

Healthier Families

Business Training

Promotion

Advanced Degree

Regular Checkups

Job Offer

GED

E-Heath

Find a Job

Help Child = School

GC

Get Contractor License

Get My Degree

BA/BS

The network of branches at the top of the tree represent the Cloud.

Each leaf represents a Rhode Islander that is actively engaged in digital citizenship. Using the tools and programs of their choosing to make a better life for them and their families

Adult Education Tools

Sign Up For Current Care

Workforce Development Portal

Child's Education Portal

Contractor Licensing Online

5 Week Basic Internet Course

Entry point for Rhode Island citizens who are digitally competent.

Modules 6-X

Entry point for Rhode Island citizens with basic Internet skills

Modules 0-5

Entry point for 1/3 of all Rhode Island citizens who have no internet experience.

MODULE 0: Mouse and Keyboard Evaluation

Estimated Time: 20 minutes of self-guided instruction, or as much time as the instructor believes is necessary for successful completion of Modules 1-4

Overview

Modules 1-5 require significant hands-on use of a computer keyboard and mouse/trackpad. Many students will have little or no experience with this hardware and will need to grow comfortable with it before proceeding to Module 1. Module 0 addresses these students' needs.

Depending on their instructional and administrative context, instructors may choose to administer Module 0 as an "add-on" module immediately before Module 1, at the point of student registration for the class, or both. Individual student circumstances and organizational resources will determine how Module 0 is delivered.

Key Objectives
- To assess student's keyboarding skills and ensure that they are adequate to complete Modules 1-5 successfully.
- To assess student's mouse or trackpad skills and ensure that they are adequate to complete Modules 1-5 successfully.

Key Vocabulary Terms
- Mouse
- Keyboard
- Trackpad

MODULE 0: Mouse and Keyboard Evaluation

Instructor Lesson Plan

STEP 1: ASK

Begin by ASKING the student questions that reveal his/her current mouse and keyboard skills:

- ASK the student what his/her level of experience is with computers and/or the Internet.
- ASK the student how comfortable he/she is using a mouse and keyboard.
- ASK the student whether he/she would be willing to demonstrate his/her keyboard and mouse skills to you.

STEP 2: DEMONSTRATE

- DEMONSTRATE the type of computer that students will use during class.
- DEMONSTRATE some of the keyboard inputs that will be required during class.
  - * Example 1: Inputting a Web address into a browser.
  - * Example 2: Typing a few sentences in an email window.
- DEMONSTRATE the mouse or trackpad skills necessary to complete the class successfully.
  - * Example 1: Launching a browser from the desktop.
  - * Example 2: Pointing the cursor to a Webpage link and clicking on the link to open a page.

STEP 3: STUDENT DEMONSTRATION

If the student is willing, ask him/her to **DEMONSTRATE** the same skills that you demonstrated to them. If you believe the student's demonstration is inadequate, invite him/her to **PRACTICE**.

STEP 4: PRACTICE

For students who need more mouse and/or keyboarding skills help, ask them to PRACTICE their skills on their own until they reach a stage where they can be successful in the class. Students may PRACTICE the following:

- PRACTICE keyboarding skills with a readily available application or game.
  - * Example 1: Doorway Text Type http://www.doorwayonline.org.uk/texttype2.html is a free, user-friendly accessible online tool that can help to build and assess keyboard skills.
  - * Example 2: Typing Club http://typingclub.com/ is a free, online tool available to instructors who want to assess accuracy and speed more closely.
- PRACTICE mouse or trackpad skills with a readily available application or game.
  - * Example 1: Solitaire, which is a standard application on most PCs, is an effective and entertaining method of assessing mouse or trackpad skills.
  - * Example 2: Skillful Senior http://www.skillfulsenior.com/skills/mouse/ is a senior-focused online game that builds mouse skills.

STEP 5: PROVE

After at least 20 minutes of self-guided practice (or as much time as the student needs to feel comfortable), ask the student to once again perform the skills that you demonstrated to him/her in Step 2. If the student successfully meets your standard, allow him/her to take Module 1; if not, ask him/her to continue to practice.

MODULE 1: Internet Browser and Website Basics

Estimated Classroom Time: 2 hours

Overview

The main goal of Module 1 is to give students who have little or no prior experience with the Internet the foundational knowledge that they can build on in subsequent modules, or independently. The module contains a heavy emphasis on the "vocabulary" of the Internet (browser interface vocabulary, Website vocabulary) in order to establish this knowledge as quickly as possible. It also matches this emphasis with "hands-on" in-class and homework exercises that immerse students in the "mechanics" of navigating Internet Web pages with a Web browser

Module Outline

LESSON NUMBER	LESSON TITLE	SUGGESTED CLASS LENGTH
1A	Introduction to the Internet and Web Browsers	60 minutes
None	Class Break	10 Minutes
1B	All About Websites	50 Minutes

Key Objectives

NAVIGATION SKILLS: Students will learn how to perform key Web browser operations, and how to apply these operations to the navigation of Web pages.

- SEARCH SKILLS: Students will learn where to begin Internet searches within browser and Webpage interfaces.
- EXPLORATION AND APPLICATION: Students will be encouraged to explore and apply their basic navigation and search skills by identifying Websites of interest.

Key Concepts and Vocabulary Terms

- Address Bar
- Browser Menu
- Link
- Navigation Bar (of a Website)
- Search Bar
- Scroll Bar
- URL (Web Address)
- Web Browser

MODULE 1A: Introduction To The Internet and Web Browsers

Instructor Lesson Plan

PRE-CLASS PREPARATION TIPS

- Print out any handouts or visual aids you plan to use.
- Make sure that the browsers used on all computers are set to the same homepage.
- Review any Website examples you plan on using before class to make sure that the information you are presenting is current.
- Do a "tech check" of all equipment to be used during class to make sure all devices are working properly.

STEP 1: INTRODUCE AND ASK

Begin the class by INTRODUCING class logistics, the objectives of the class, your own availability during non-class hours, and information that's unique to your teaching location or style. Then ASK students questions about their goals for the class and their knowledge of the Internet. Effective methods include the following:

- ASK students to participate in a group discussion about their goals and their knowledge of the Internet.
- ASK students to react to a short video that offers an introduction to the Internet or to Web browsers. A good example is "What Browser?" http://whatbrowser.org a widely-viewed 1-minute video that introduces the concept of a Web browser.
- ASK students to read a short handout and offer their reactions to it. An example of good tone and content is Internet 101, "How is the Internet Used?" http://www.gcflearnfree.org/internet101/2

STEP 2: DEMONSTRATE SIX KEY ACTIONS

The in-class exercise for this module should focus on developing students' ability to use a Web browser. Imparting this fundamental skill is necessary in order for students to successfully complete future modules. DEMONSTRATE how to use the browser by showing students the following 6 key actions:
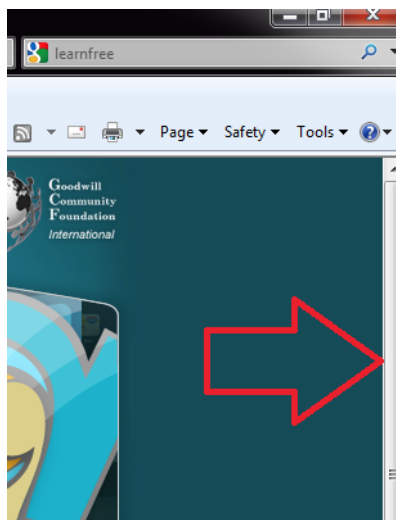
1. DEMONSTRATE how to open the Web browser by clicking on a desktop icon or through the start menu.
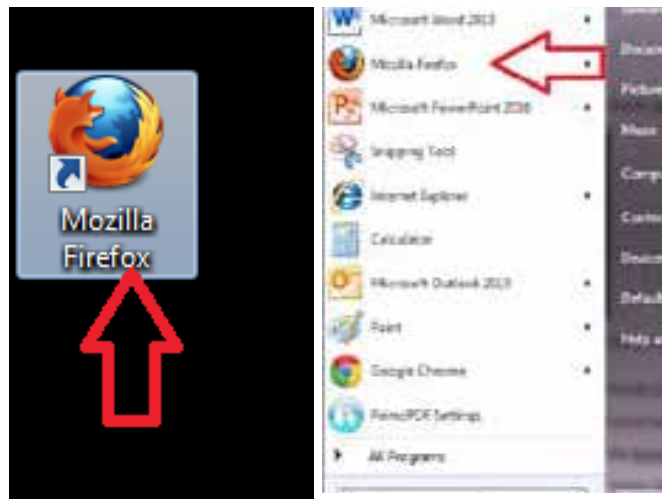
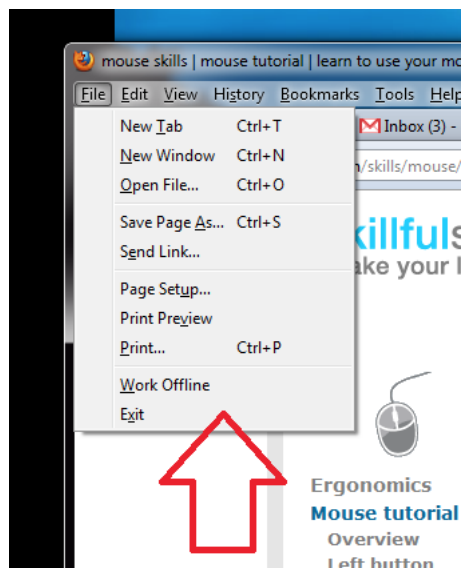2. DEMONSTRATE how to type Web addresses (URLs) into the address bar..
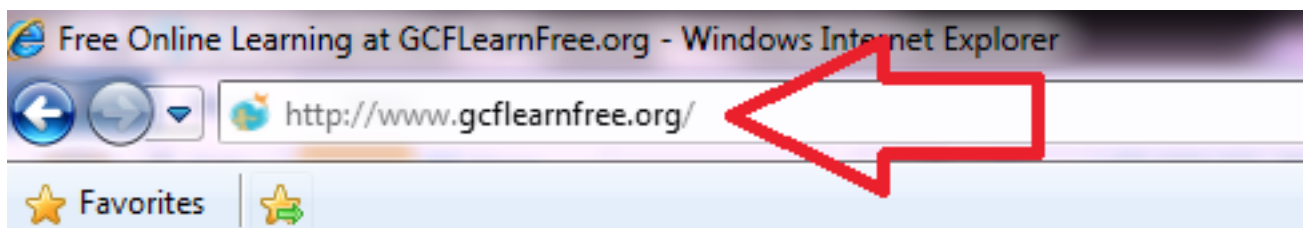
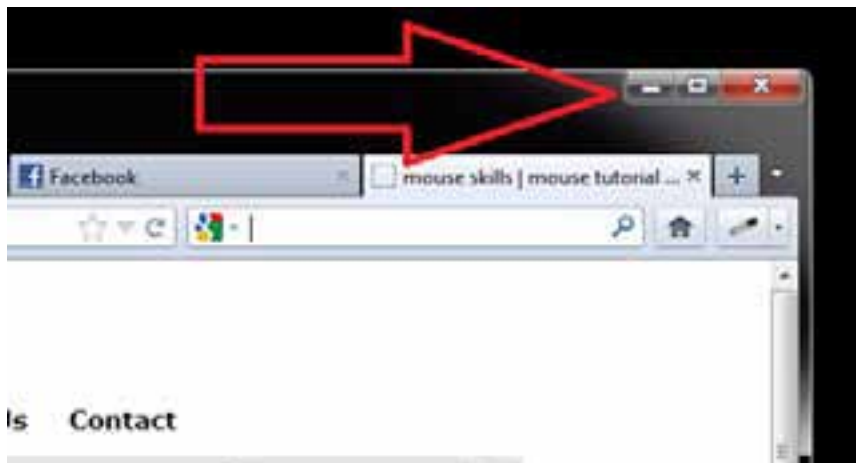3. DEMONSTRATE how to scroll down Web pages using the browser's scroll bar.

4. **DEMONSTRATE how to perform a search in the browser's search bar.**

5. **DEMONSTRATE the browser's menus, and speak briefly about their purposes.**

6. **DEMONSTRATE how to minimize and close the browser.**

STEP 3: STUDENT DEMONSTRATION OF SIX KEY ACTIONS

Ask each student to DEMONSTRATE the same actions that you demonstrated to them in STEP 2. Keep the following in mind:

- Students may ask you for examples of searches and URLs to enter.
- Not every browser menu item can be explained in class.
- It is best if you ask students to work with the same browser that you demonstrated with rather than have them choose; this prevents student confusion.

STEP 4: PRACTICE

Ask students to PRACTICE the same 6 actions throughout the rest of the class period. You may choose to enhance this practice by asking them to do the following:

- PRACTICE with different Web browsers.
- PRACTICE entering URLs of Websites that interest them.
- PRACTICE entering searches of interest in the browser search bar.

MODULE 1B: All About Websites

Instructor Lesson Plan

STEP 1: INTRODUCE AND ASK

Begin the second half of the class by INTRODUCING students to the connection between browsers and Web pages. Make sure that they understand that browsers allow them to read/access Web pages. Then ASK students about their experience with Web pages or the types of Web pages they want to visit:

- ASK students if they have visited any Web pages.
- ASK students if they have a favorite Website or set of Websites.
- ASK students what they see others doing on Websites, or what they'd like to do on Websites.

STEP 2: DEMONSTRATE SIX KEY PARTS OF WEB PAGES

The in-class exercise for this module should focus on developing students' ability to identify key parts of a Webpage. DEMONSTRATE the following 6 key parts of Web pages while emphasizing how to navigate pages with a mouse (or trackpad) and a keyboard:

1. DEMONSTRATE the Webpage's address (URL), and explain what each part of a Web address stands for.
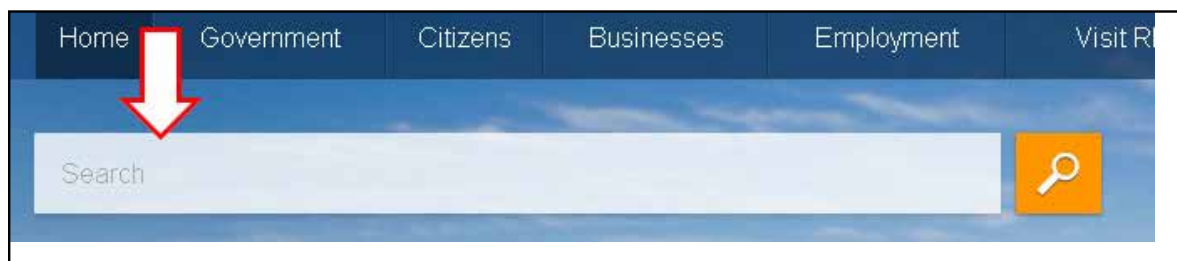
   * Part 1: http://
   * Part 2: www
   * Part 3: gcflearnfree
   * Part 4: .org (or .com or .gov, etc.)
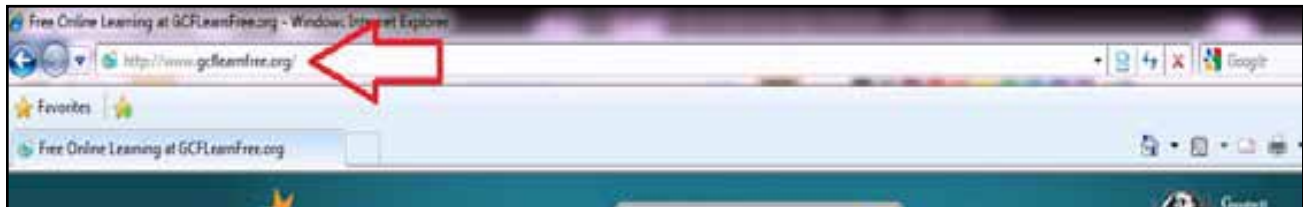
2. DEMONSTRATE Website navigation bars (vertical or horizontal) and emphasize how they are essentially another way to search for information.
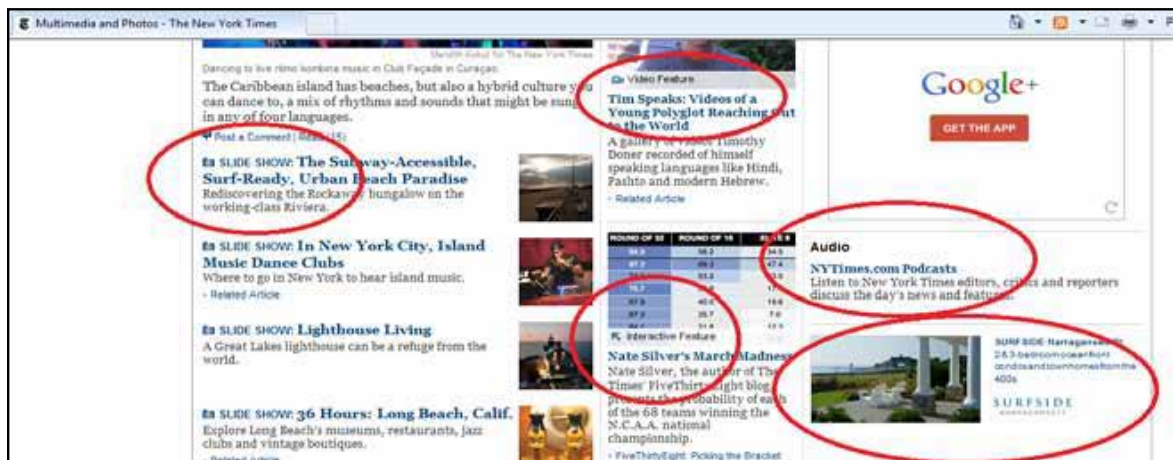

3. DEMONSTRATE search boxes, forms, and other spaces where users can enter search terms or other information.

4. DEMONSTRATE how to identify links and how to click on them.

5. DEMONSTRATE the various media that are typically found on Web pages like video, audio, and pictures.
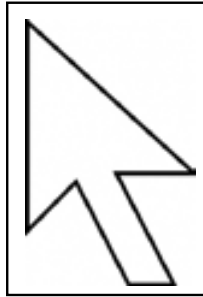

6. DEMONSTRATE how to identify advertisements and what the consequences are of clicking on them.

While demonstrating these parts, highlight the following mouse/cursor changes:

1. DEMONSTRATE that moving the mouse (or trackpad) around, without pointing to or landing on a link, it will simply show an arrow:

2. DEMONSTRATE that a hand with a pointing finger appears whenever the mouse is pointing to a link:

3. DEMONSTRATE that a blinking text cursor will appear whenever the mouse is placed in the address bar, a search box, or a form that allows for the typing of text:
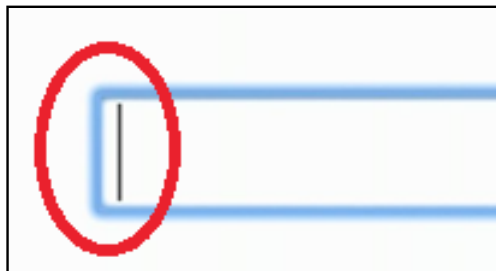
STEP 3: STUDENT DEMONSTRATION OF SIX KEY PARTS

Ask each student to DEMONSTRATE the same 6 key parts of Web pages by asking them to identify the key parts on pages that you choose. Be sure to choose Web pages that look different from each other but that have those 6 key parts. Keep the following in mind:

- You may consider choosing a theme or category of Websites (news sites, sports sites, fashion sites, etc.) and have students navigate various sites within that theme. The goal is to demonstrate that sites have common features and content categories, and that learning to navigate one site helps to navigate others of the same type.
- Alternatively, you may choose a single, rich Website and ask students to do the exercise together.

STEP 4: PRACTICE

Ask students to PRACTICE identifying the same 6 key parts of a Webpage throughout the rest of the class period. Provide them with additional Web pages to explore, or have them enter URLs (or search for Web pages) of interest to them.

STEP 5: REVIEW AND APPLY

Towards the end of class, ask students to review and apply what they've learned by reviewing the 12 steps covered in Modules 1A and 1B. You may also invite them to review and practice the exercises in the following Goodwill Community Foundation (GCF) Learnfree.org lessons at home or wherever they have access to a computer:

- GCF Learnfree.org, Internet 101, Browser Basics: http://www.gcflearnfree.org/internet101/4
- GCF Learnfree.org, Mozilla Firefox, Using the Firefox Interface: http://www.gcflearnfree.org/mozillafirefox/2
- GCF Learnfree.org, Internet Explorer 8, http://www.gcflearnfree.org/internetexplorer
- GCF Learnfree.org,Chrome,
- http://www.gcflearnfree.org/chrome

MODULE 2: Internet Search Basics

Estimated Classroom Time: 2 hours

Overview

This is a two-part module that covers basic aspects of Internet search and prepares students for performing more sophisticated searches. In addition to introducing them to search engines and their uses, the module covers the "how-tos" of searching Websites and simple databases. The module assumes the basic ability to use a browser and a basic familiarity with common Website elements as covered in Module 1, but also builds on this knowledge through exercises and discussion. The key to Module 2 is to introduce students to the breadth and depth of information that the Internet contains while teaching them the skills that allow them to find specific information quickly and effectively.

Module Outline

LESSON NUMBER	LESSON TITLE	SUGGESTED CLASS LENGTH
2A	Searching with Search Enginess	60 minutes
None	Class Break	10 Minutes
2B	Searching and Gathering Information from Websites and Databases	50 Minutes

Key Objectives

- NAVIGATION SKILLS: Students will build on the navigation skills they learned in Module 1 by learning additional browser and Website features.

- SEARCH SKILLS: Students will learn how to use navigation to perform basic searches and learn the fundamentals of using search engines, databases, and Web-based search tools.

- COMMUNICATION SKILLS: Students will learn the basics of how they can transmit information and communicate with others on Websites.

- EXPLORATION AND APPLICATION: Students will be encouraged to explore and apply the skills they have learned to date to a topic of interest.

Key Concepts and Vocabulary Terms

- Advertisements
- Browsing (a Website or search results)
- Back/Forward Buttons
- Copy-and-paste
- Database
- Facet
- Forms
- Home Button
- Related Searches
- Search Box
- Search Engine
- Search Results
- Tabbed Browsing

MODULE 2A: Searching With Search Engines

Instructor Lesson Plan

PRE-CLASS PREPARATION TIPS

- Print out any handouts or visual aids you plan on using.
- Make sure that the browsers used on all computers are set to the same homepage, preferably Google or another search engine.
- Go through any Website examples and searches you plan on using before class to make sure that the information you are presenting is current. Prepare various examples of Internet searches that you believe students will find interesting and that will advance the goals of the class.
- Do a "tech check" of all equipment to be used during class to make sure all devices are working properly.

### STEP 1: REVIEW, ASK, INTRODUCE, ASK

Begin the second module of the class by REVIEWING the 12 features of browsers and Web pages covered in Module 1. ASK the students if they have any questions about the last class or the take-home exercises, address those questions, and then INTRODUCE the main goals of Module 2:

- INTRODUCE the concept of "searching" for information on the Internet.
- INTRODUCE the concept of a search engine and explain why search engines are useful.
- INTRODUCE the concept of searching databases and Websites, and how these searches are different than those done in search engines.
- ASK students whether they have experience with searching for information on the Internet, what types of information they have searched for, and what they would like to search for. Try to address their needs and wants through examples in class.

STEP 2: DEMONSTRATE SIX KEY FEATURES OF THE GOOGLE RESULTS PAGE

The in-class exercise for this module should focus on developing students' ability to identify the key parts of the Google search results page. (Instructors may choose to use Yahoo or Bing or some other search engine if they like.) Using searches that are of interest to the class, DEMONSTRATE the following key features while introducing additional browser features:

1. DEMONSTRATE the facet ribbon at the top of the results page that shows the various Google services. Right-click on "images" or "maps" to open up a new tab to show tabbed browsing.
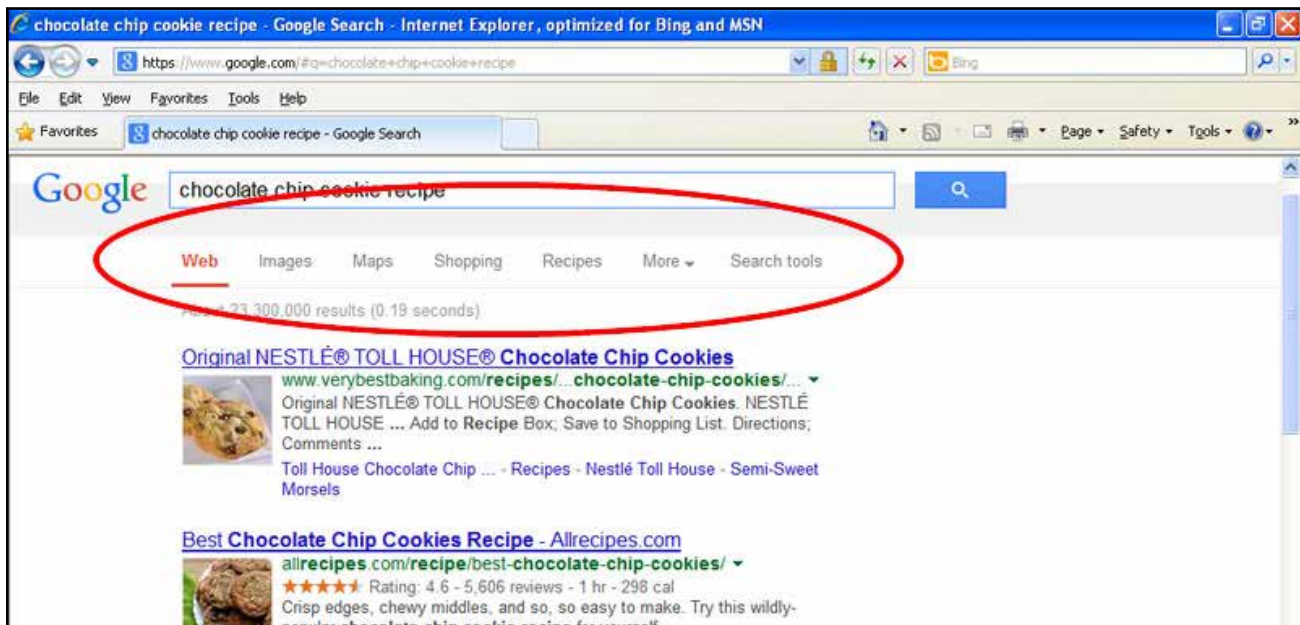

2. DEMONSTRATE the facets at the top of the page that are used to narrow search results. Click on a facet or several facets of interest to narrow the search, and then show students how to use the browser's back/forward buttons.
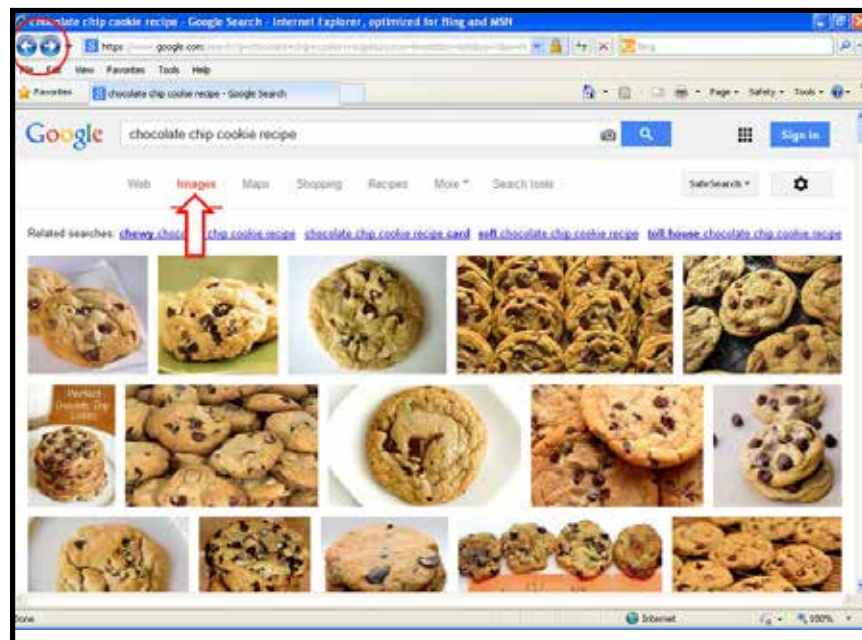
3. DEMONSTRATE the search box at the top of the page and how to narrow or broaden searches by adding or subtracting search terms. Show students how to use the browser's home button to start a new search.
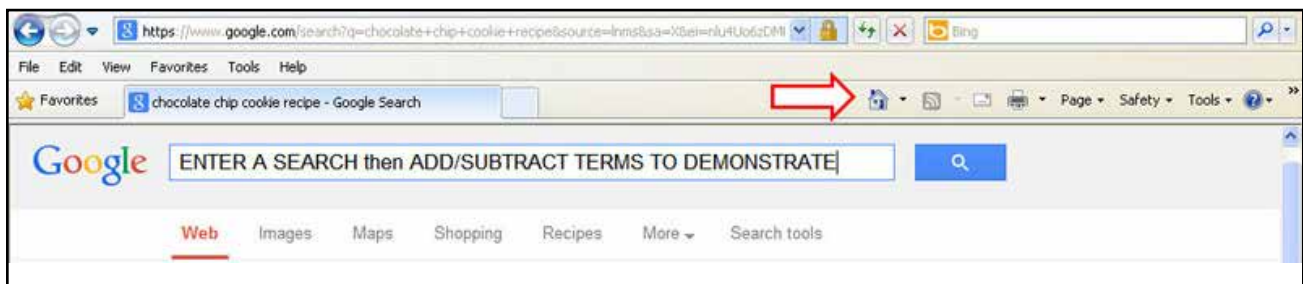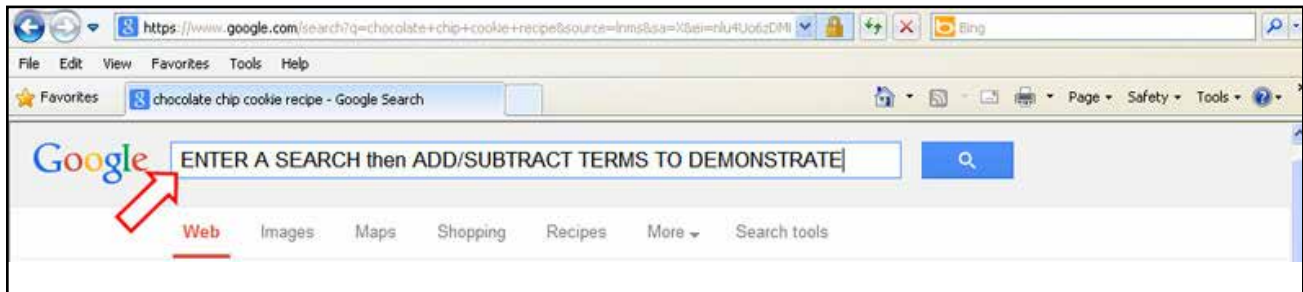
4. DEMONSTRATE the advertisement on the search results page and explain that ads are the main way that Google and other search companies make a profit.
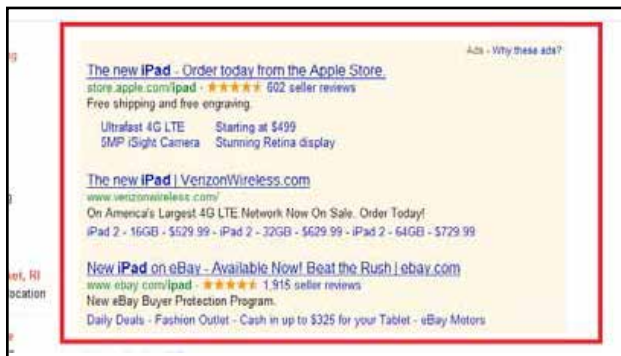
5. DEMONSTRATE how to browse through the search results at the bottom of the page.
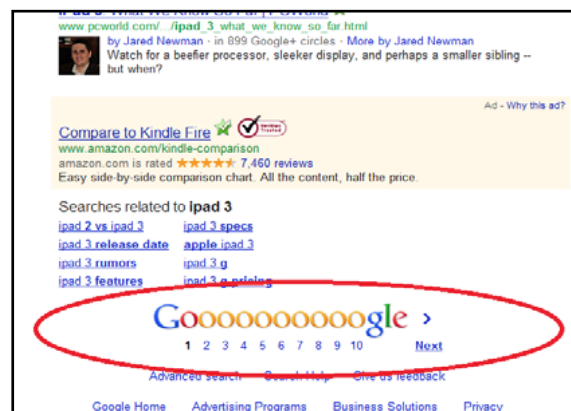
STEP 3: STUDENT DEMONSTRATION OF SIX KEY FEATURES

Ask each student to DEMONSTRATE the same 6 key features of the Google results page by using searches that you have prepared before class or searches that the group as a whole agrees upon. Make sure that all students are performing the same search so that they can help each other and give feedback on the same experience. Do as many of these collective searches as time allows.

STEP 4: PRACTICE

Ask students to PRACTICE identifying and working with the same 6 key features by doing Google searches of interest to them.

MODULE 2B: Searching For And Gathering Information From Websites and Databases

Instructor Lesson Plan

STEP 1: INTRODUCE AND ASK

Begin the second half of the class by INTRODUCING students to the difference between searching Google, and searching individual Websites and "closed" databases. Explain that Google and other search engines contain publicly available information, but that a lot of information is private or else stored in Websites or databases that are best searched individually.

Then, ASK students to react to examples that you provide of when it may be easier to use search methods other than Google. For instance, ask them whether they think it's easier to purchase something from a department store by visiting that store's Website, or whether it's easier to find it on Google based on what they know about Google.

STEP 2: DEMONSTRATE SIX ADDITIONAL SEARCH SKILLS

The in-class exercise for this module should focus on developing students' ability to identify the similarities and differences between searching for information in Google on the one hand, and Websites and databases on the other. Using searches that are of interest to the class, DEMONSTRATE the following key skills:

1. **DEMONSTRATE** how to find a specific topic or object of interest by browsing menus within a large site with many sections like eBay http://www.ebay.com/ or Craigslist http://providence.craigslist.org.
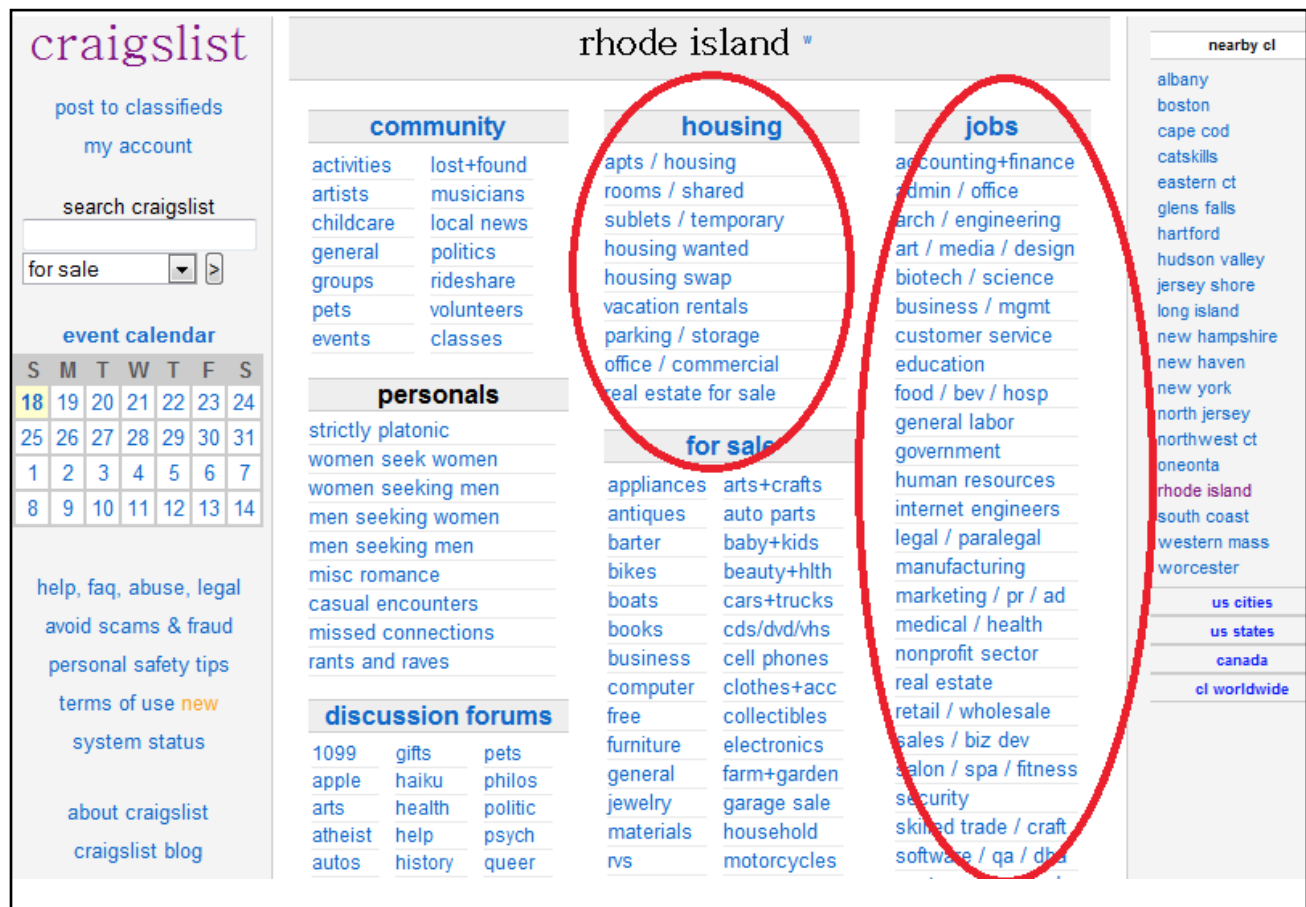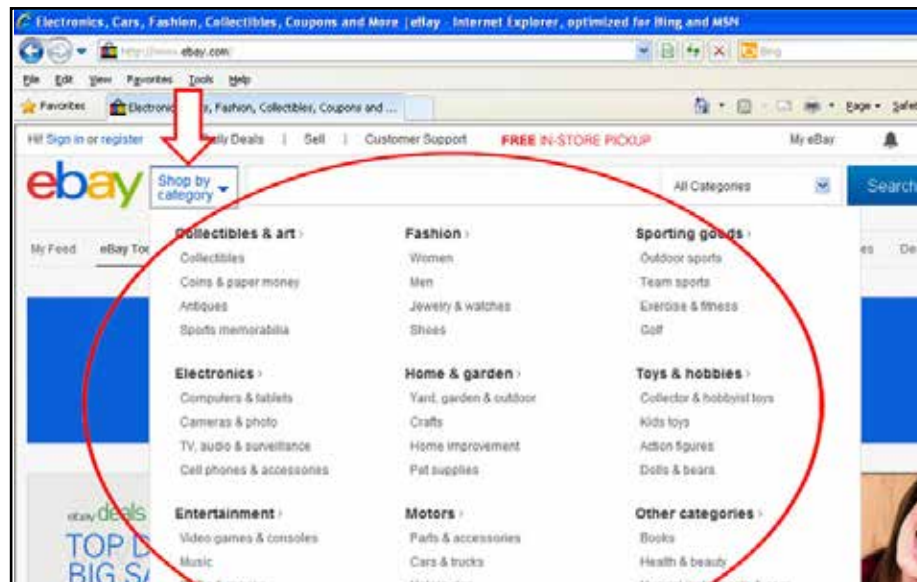
2. DEMONSTRATE that commercial Websites like Amazon http://www.amazon.com/ or news Websites like CNN http://www.cnn.com/ have Website search boxes that make it easy to find current and/or specific information.


3. DEMONSTRATE how Web forms are a way of gathering personal information from Internet users, and how this information is typically kept private, for both good and not-so-good purposes. You may choose to show the RI.gov vehicle registration Webform https://www.ri.gov/DMV/vrr/identify.php (or something similar) to demonstrate how governments services are moving online.

   You may also choose to show any number of commercial Website Webforms to show how personal information is gathered for commercial use (e-commerce).

4. DEMONSTRATE that "closed" databases like the public library catalog http://encore.oslri.net/iii/encore/home?lang=eng are only searchable by visiting that particular database. Show how searching these databases is very similar to searching Google because both are essentially Websites, but that the information that databases contain is limited to the data contained and maintained in them. (In other words, it's not like searching "everything" on Google.)
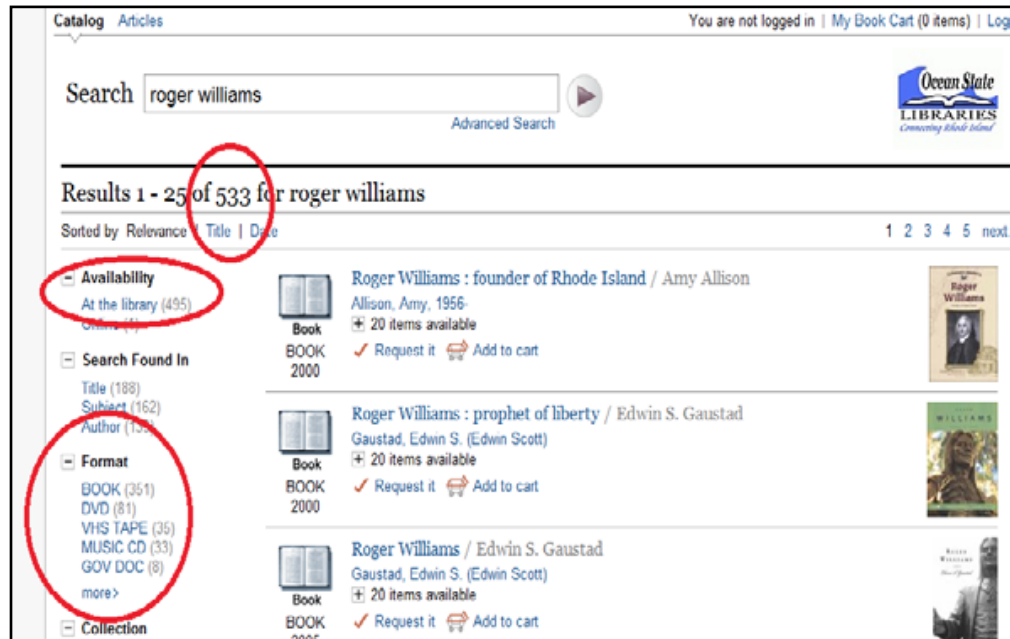
5. DEMONSTRATE that many Websites and databases offer ways to communicate with others, using email, social media, or other tools. Emphasize that these tools are usually meant to be helpful, but that caution should always be exercised when communicating online. You may choose to use the ASKRI ask-a-librarian http://askri.org/chat service as an example.
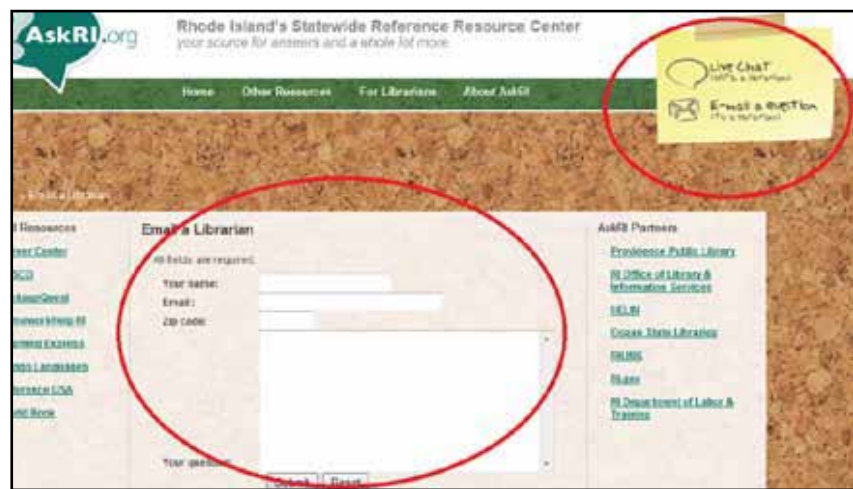
6. DEMONSTRATE how it is easy and useful to gather and send information you find to yourself or others using email or other tools. You may choose to show students how to use the add-to-cart feature in the library catalog http://catalog.oslri.net or in Amazon http://www.amazon.com/ or show students how to copy-and-paste links (in anticipation of the Module 3 email class).
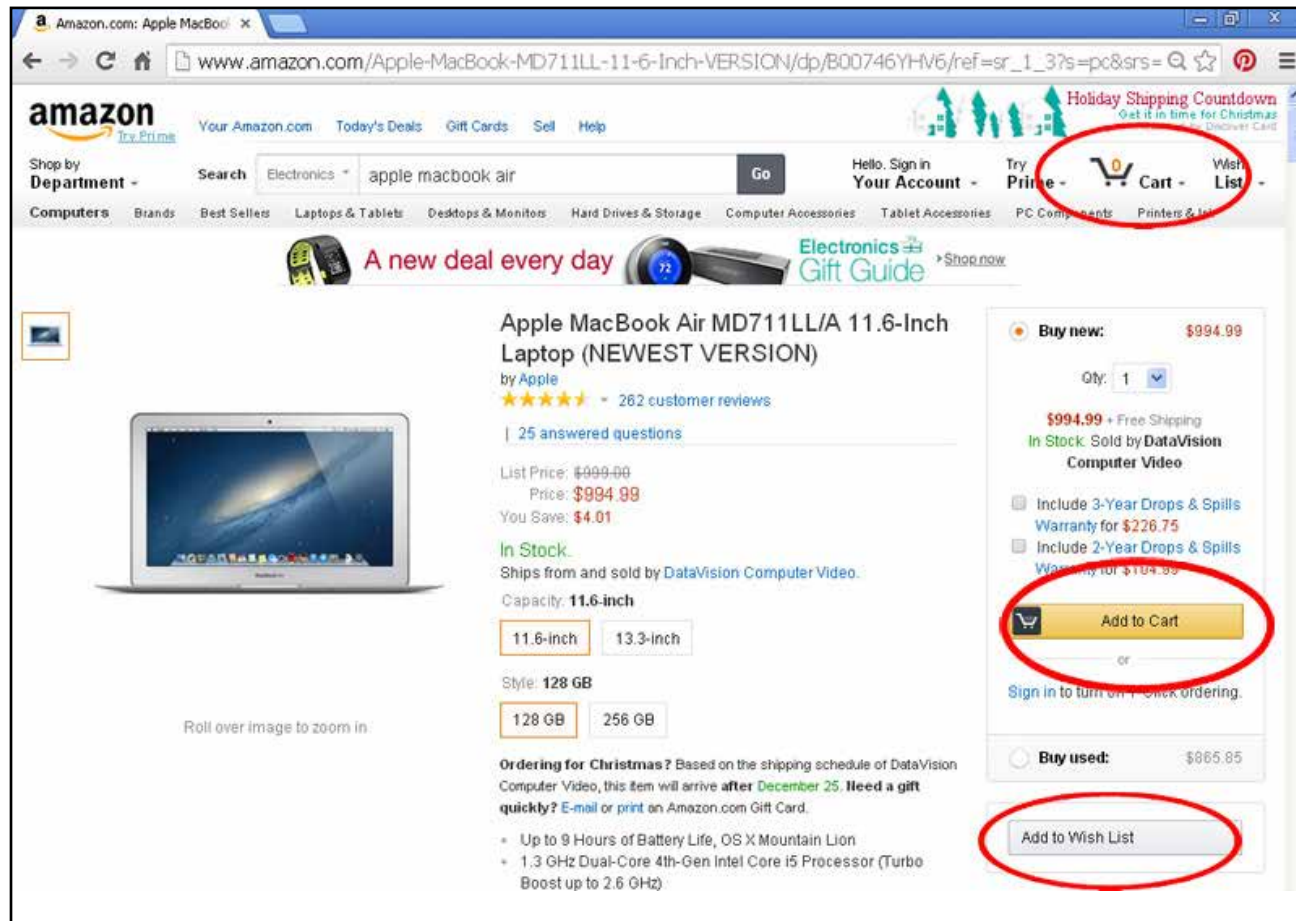
STEP 3: STUDENT DEMONSTRATION OF SIX ADDITIONAL SEARCH SKILLS

Ask each student to DEMONSTRATE the same 6 search skills by using searches that you have prepared before class or searches that the group as a whole agrees upon. Make sure that all students are doing the same search so that they can help each other and give feedback on the same experience. Do as many of these collective searches as time allows.

STEP 4: PRACTICE

Ask students to PRACTICE the same 6 search skills by doing searches and exploring Websites of interest to them.

STEP 5: REVIEW AND APPLY

Towards the end of class, ask students to review and apply what they've learned by reviewing the 12 steps covered in Modules 2A and 2B. You may also choose to invite them to review and practice the exercises in the following GCF Learnfree.org lessons at home or wherever they have access to a computer:

- GCF Learnfree.org, Internet 101, Search Engines and Strategies, http://www.gcflearnfree.org/internet101/5
- GCF Learnfree.org, Internet Safety, http://www.gcflearnfree.org/internetsafety
- GCF Learnfree.org, Beyond Email, All About Communicating Online, http://www.gcflearnfree.org/beyondemail/

MODULE3: Internet Communication (Email Basics)

Estimated Classroom Time: 2 hours

Overview

This module sets students on the path to communicating with others on the Internet by introducing them to email. The module assumes that after having mastered the use of a browser and learning how to navigate Websites (Module 1), and after having learned to perform searches on search engines and databases (Module 2), the student is now in the position to produce and communicate his/her own personal content using the most common form of Internet communication. The module introduces basic security and privacy issues.

Module Outline

LESSON NUMBER	LESSON TITLE	SUGGESTED CLASS LENGTH
3	Internet Communication (Email)s	110 minutes
None	Class Break	10 Minutes

Key Objectives

NAVIGATION SKILLS: Students will build on the navigation skills they learned in Modules 1 and 2 by learning how to navigate within a dynamic Web-based email interface that mirrors the experience of many common Web applications.

- SEARCH SKILLS: Students will build on their search skills by practicing searching for email through navigational techniques and text searches.
- COMMUNICATION SKILLS: Students will learn how to communicate via email and learn the basics of managing these communications.
- EXPLORATION AND APPLICATION: Students will be encouraged to decide on a topic of interest that they wish to explore in more depth during the last class in the series.

Key Concepts and Vocabulary Terms

- Archive
- Compose
- Email
- Folders
- Forward
- Inbox
- Login
- Logout
- Reply
- Send
- SPAM

PRE-CLASS PREPARATION TIPS

- Print out any handouts or visual aids you plan to use.
- Make sure that the browsers used on all computers are set to the same homepage, preferably Google or another search engine.
- Go through any examples that you plan on using before class to make sure that the information you are presenting is current.
- Do a "tech check" of all equipment to be used during class to make sure all devices are working properly.
- IMPORTANT TIP: Set up free Web-based email accounts for each of your students using a service like Gmail or Yahoo. Many students have existing email accounts that they prefer to use—you may allow them to use these accounts for class purposes at your option. However, demonstrating the use of Web-based email with students using different services may lead to a disjointed presentation. The current suggested best practice is the following:

1. DECIDE on a single free Web-based email service for use in class. This lesson plan recommends Gmail, but the concepts can be easily translated into Yahoo or other services.

2. CREATE email accounts for each student in your class that can be re-used from class to class. Re-using accounts creates a body of email within each account that is useful for demonstration purposes. Create as many accounts as your typical class size requires, and do so along a theme for easy administration of the accounts and fluid class exercises. For example, you could create 7 accounts using the names of Disney's 7 dwarfs:

   * Account 1:
   · First Name: Bashful
   · Last Name: Dwarf
   · Email address: bashfuldwarf@gmail.com
   · Password: redfaced101

   * Account 2:
   · First Name: Dopey
   · Last Name: Dwarf
   · Email address: dopeydwarf@gmail.com
   · Password: bigears123

3. CREATE cards or name badges with the sign-on page URL, the email address, and the password typed on them, and assign each student a single email address and "persona" to use in class. After Module 5, change the password for each account so that they are only accessible to the next round of students. Re-use the accounts with the next set of students.

4. OR if your students would like a permanent email account, you may create one for each student at the end of Module 2 AND make sure you write the address and password on a card for the student.

5. If your students would like to create their own email account, they will need to bring a mobile phone with text of voicemail capability to class in order to create a free email account.

STEP 1: REVIEW, ASK, INTRODUCE, ASK

Begin the third module of the class by REVIEWING key points from the first two modules, paying close attention to concepts or features that most students need additional assistance with. ASK the students if they have any questions about the last class or the take-home exercises, address those questions, and then INTRODUCE the main goals of Module 3:

- INTRODUCE the concept of communicating "electronically" via the Internet.
- INTRODUCE the idea of email, and compare and contrast it with other common forms of communication like letter-writing or phone conversations.
- INTRODUCE the importance of having an email address and the many uses for that email .

ASK students whether they have experience with using email, what benefits they've enjoyed or believe they can get from using it, and what fears or concerns they have about using it.

STEP 2: DEMONSTRATE SIX BASIC FEATURES OF THE GMAIL INTERFACE

The first half of the class should focus on familiarizing students with how to access Web-based email and with the look-and-feel of the interface so that they can then perform basic email tasks during the second half of the class. DEMONSTRATE the following key features

1. DEMONSTRATE how to get to the Gmail login http://mail.google.com/ screen and how to sign in to Gmail

2. DEMONSTRATE the inbox screen and the folders menu, and explain what each folder contains.
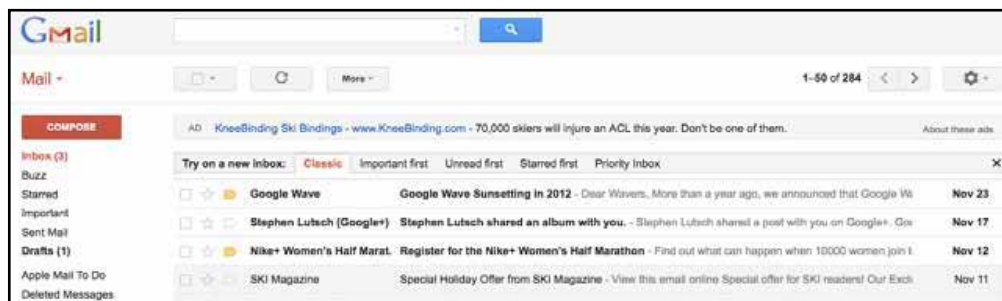
3. DEMONSTRATE the difference between opened and unopened messages.
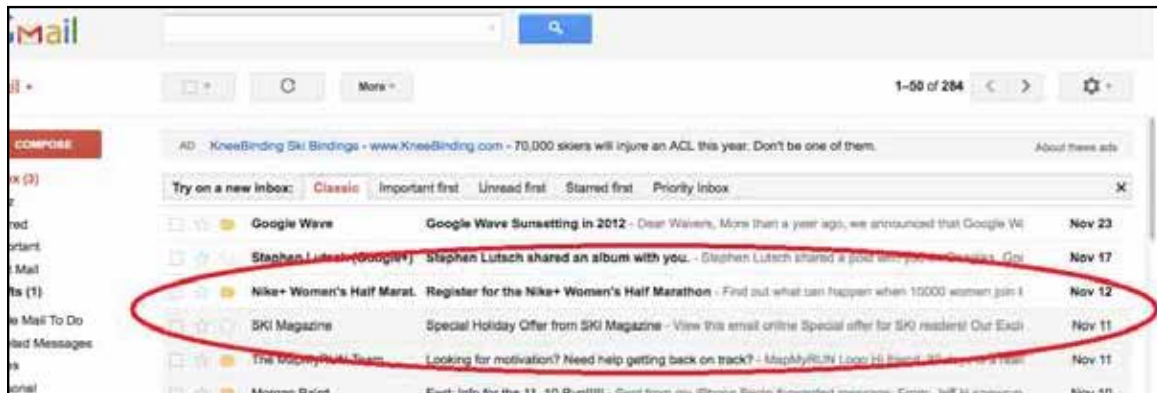
4. DEMONSTRATE the date sort column and explain how Gmail arranges email by date.

5. DEMONSTRATE how to open a message and the actions that can be taken from that screen.

6. DEMONSTRATE the compose new message screen and briefly explain each of its major features.

STEP 3: STUDENT DEMONSTRATION OF SIX BASIC FEATURES OF GMAIL INTERFACE

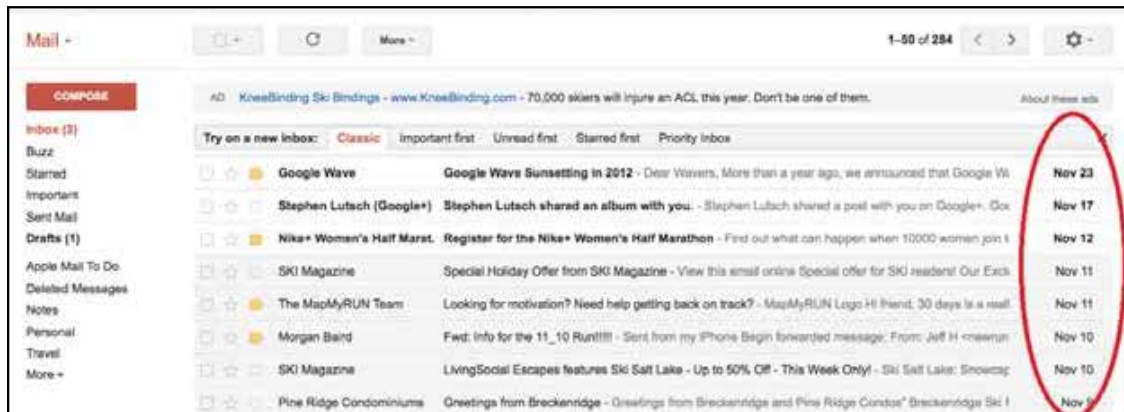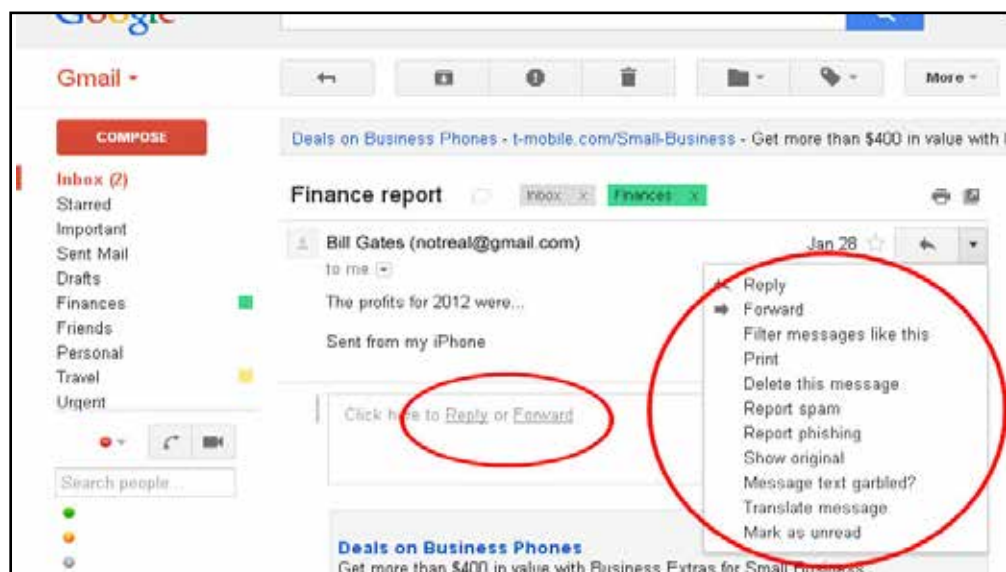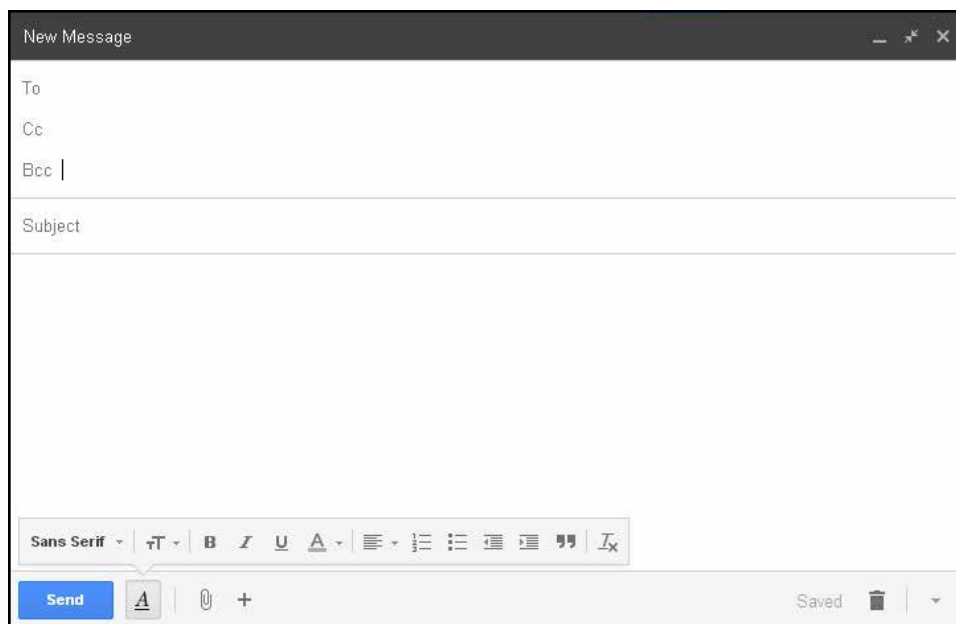Ask each student to DEMONSTRATE the same 6 Gmail features to another student. Make sure that all students follow the order that you followed so that you can provide answers to any questions individual students may have to the group as a whole. As you highlight each feature, point out more details that may be of interest to students.

STEP 4: PRACTICE

Ask students to PRACTICE identifying the same 6 features on their own. Consider offering them a CLASS BREAK after they are done doing so.

STEP 5: INTRODUCE

After demonstrating and reviewing the basic features of the Gmail interface, INTRODUCE the need to compose and manage email with sound judgment and care. The following core discussion points and/or related ones may prove useful:

- INTRODUCE the need to be careful of how one writes email, the content that's communicated via email, and to whom email is sent.
- INTRODUCE the advantages of managing/organizing one's email.
- INTRODUCE the importance of keeping one's email account secure and of logging out when using email at public computers or computers that aren't one's own.

After covering these introductory points, explain that the rest of the class will give students basic practice in sending and managing email, and that they should plan on practicing before the next class by sending their instructor and each other email.

STEP 6: DEMONSTRATE SIX KEY EMAIL ACTIONS

1. DEMONSTRATE how to compose a new message by showing students what each field in the "compose new message" screen requires, how to attach files, and how to send the message in the order below
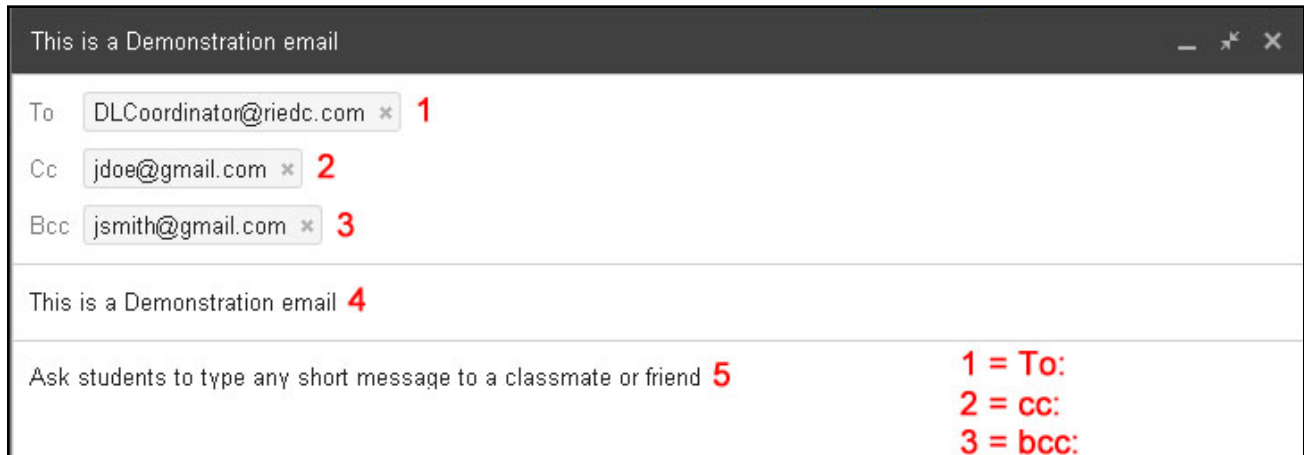
2. DEMONSTRATE how to reply, forward, and delete email in the order below.
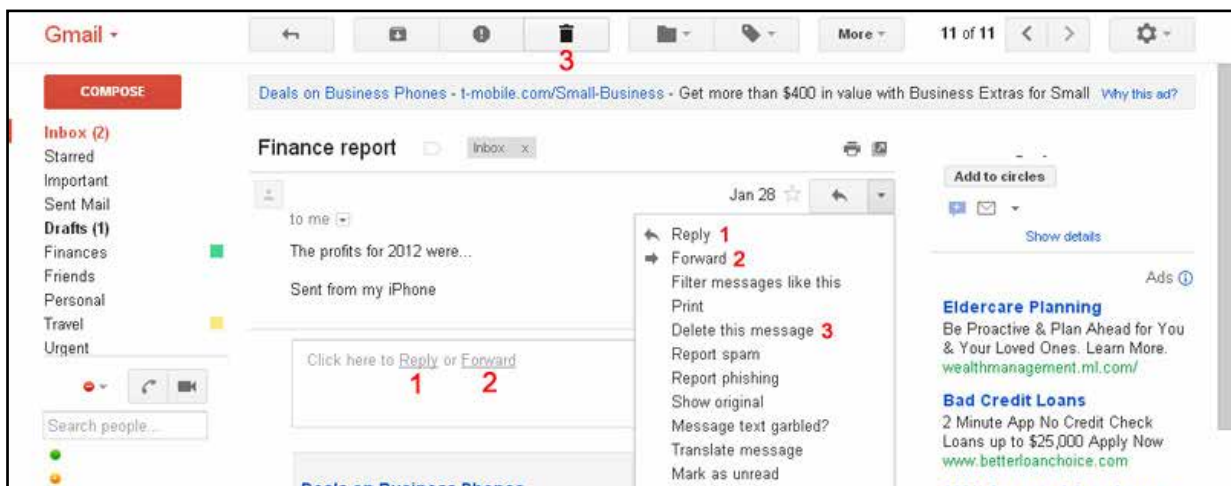
3. DEMONSTRATE how to archive email and place it into folders.
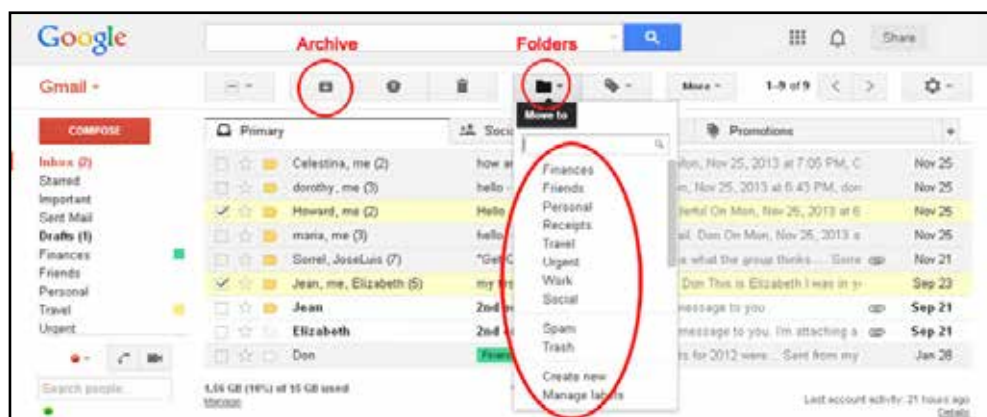
4. DEMONSTRATE the SPAM folder and button and briefly explain how to identify SPAM and the consequences of labeling a message as SPAM.
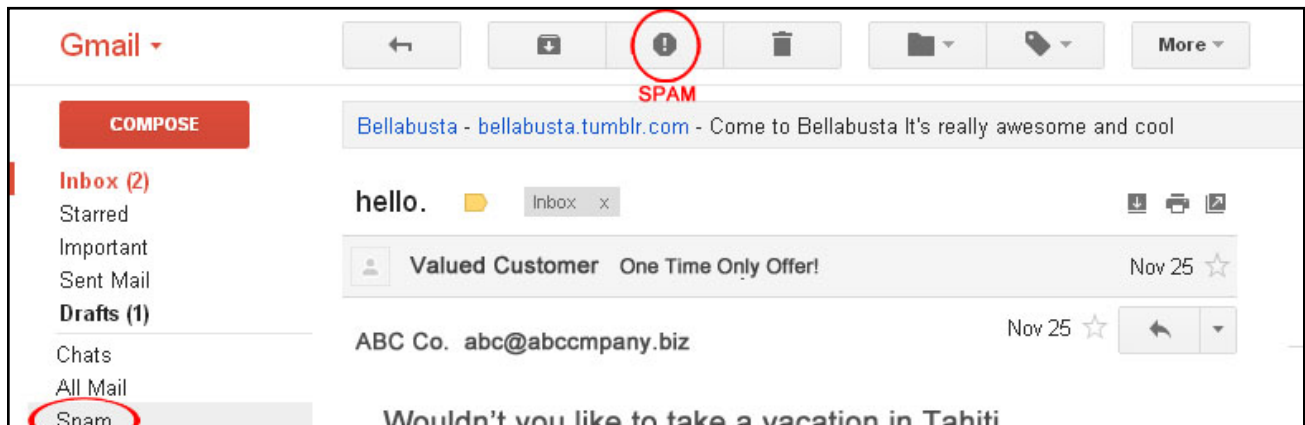
5. DEMONSTRATE how to search for email by using the search box.
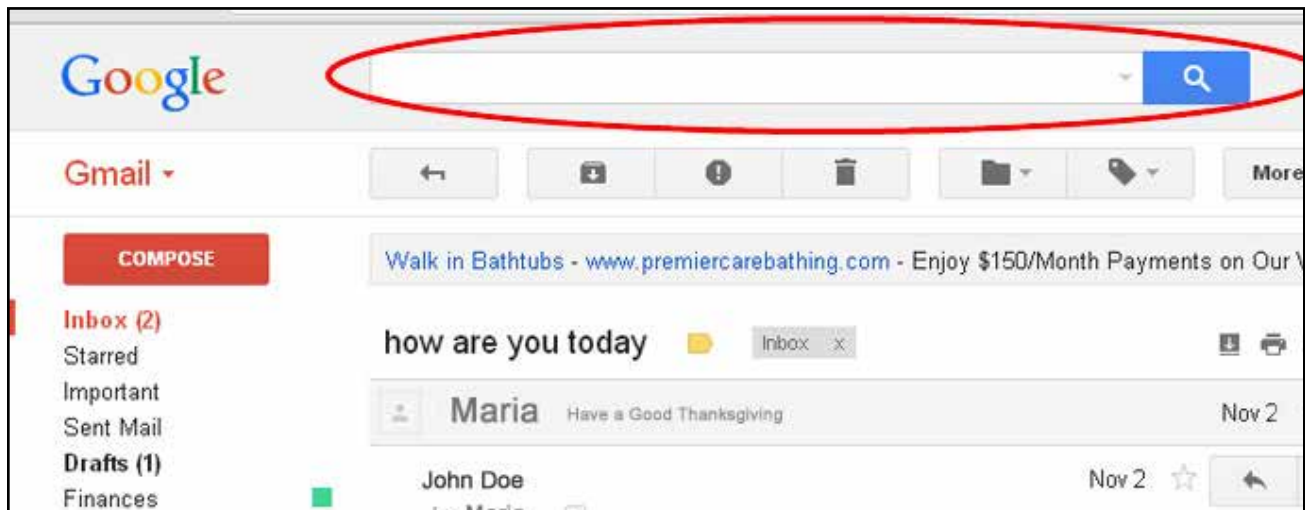
6. DEMONSTRATE how to log out of Gmail and emphasize its importance when using shared or public computers.
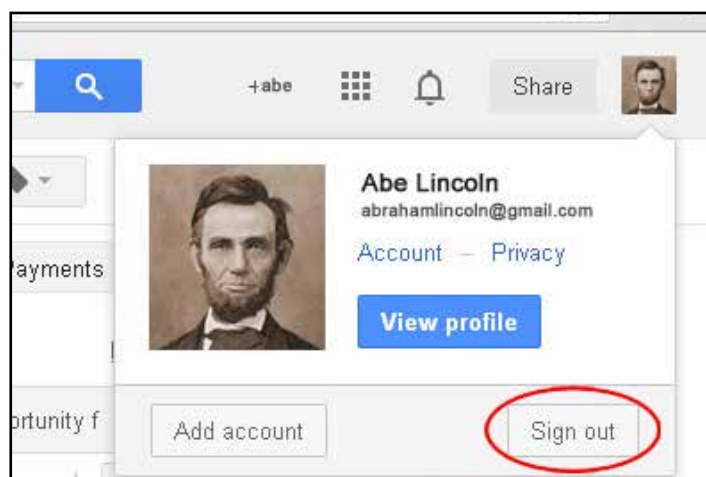
STEP 7: PRACTICE

ASK students to PRACTICE the same 6 email actions by sending, replying to, forwarding and performing other tasks with at least one or more classmates or with the instructor. When doing so, be mindful of the following:

- Make sure that students have each other's email addresses at the ready.
- Some students may struggle with basic spelling or literacy skills that make writing an email a difficult task.
- The more that students email each other, the more email will be left in your class "practice" accounts for other students' future use.

STEP 8: REVIEW AND APPLY

Towards the end of class, review the 12 steps covered in Module 3. Then remind students to take home their practice email account information home and encourage them to practice their email skills by sending, forwarding, and replying to email. If you plan on asking students to perform a self-directed project in Module 5, ask them to use the skills they have learned so far to send you email about a topic of interest that they would like to explore in further depth. You may also encourage them to review and practice the exercises in the following GCF Learnfree.org lessons at home or wherever they have access to a computer:

- Email Basics, Email 101,
   http://www.gcflearnfree.org/email101
- Email Basics, Introduction to Gmail,
   http://www.gcflearnfree.org/gmail/1
- Before You Hit Send!Or Share!Or Publish,
   http://blog.gcflearnfree.org/2010/03/22/before-you-hit-sendor-shareor-publish/
- Email Violations Can Jeopardize Your Job,
   http://www.gcflearnfree.org/email101/article/56
- Email Basics, Setting up a Gmail Account,
   http://www.gcflearnfree.org/gmail/2

MODULE 4: Internet Safety and Privacy Basics

Overview

The Internet's immense influence and ever evolving technologies, coupled with the explosion of social media, have made users far more exposed to security threats and privacy intrusions.

This module will introduce you to some of the common types of threats you may encounter while online and while using email. Internet safety and online privacy is of major concern for all Internet users, but can be particularly troublesome to new users.

This module requires a delicate balance by the instructor to deliver a class that is cautionary, but not excessively alarming. It is important that by the completion of this module, the student comprehends the public nature of the Internet, primary cautions about being online, and some practices that can reduce some of the threats they will face.

Module Outline

LESSON NUMBER	LESSON TITLE	SUGGESTED CLASS LENGTH
4A	Internet Safety and Privacy Part A	60 minutes
None	Class Break	10 Minutes
4B	Internet Safety and Privacy Part B	50 Minutes

Key Objectives

- NAVIGATION SKILLS: Students will build on the navigation skills they learned in Modules 1 and 2 by learning how to navigate dynamic Websites, while applying safety and privacy practices.

- SEARCH SKILLS: Students will build on their search skills by practicing searching and browsing using safety and privacy practices, thus developing an Internet safety mindset.

- COMMUNICATION SKILLS: Students will build on the email communication skills learned in module 3 by recognizing basic common threats, and ways to reduce risk when communicating via email.

Key Concepts and Vocabulary Terms

- Username
- Password
- Challenge Security Questions
- Public Data vs. Private Data
- https: vs. http:
- Viruses Worms
- Trojans
- Anti-Virus Software
- Parental Controls

• Logoff Phishing (Scamming)

MODULE 4A: Internet Safety and Privacy Basics
Instructor Lesson Plan

PRE-CLASS PREPARATION TIPS

- Print out any handouts or visual aids you plan to use. Set the classroom browsers to the same homepage, preferably Google or another search engine.
- Review Internet examples that you plan to use before class to make sure the information you are presenting is current.
- Do a "tech check" of all equipment to be used during class to make sure all devices are working properly. A full Pre-Class Preparedness Checklist is available on the Digital Literacy Portal Website.

Identify key concepts and examples from modules 1 & 2 (navigation & searching) to use as a quick review prior to introducing new material. Review navigation and searching briefly with students prior to beginning Step 1.

STEP 1: INTRODUCE AND ASK

Begin the class by INTRODUCING students to the public nature of the Internet and typical online safety and privacy threats (simple passwords, email phishing scams, etc.) they may encounter while online.

ASK students for a few examples from their own experiences re: Internet security concerns. React to and discuss these examples briefly.

Then, ASK students to react to examples that you provide.

- INTRODUCE the concept of passwords and how to determine their relative "strength"
- INTRODUCE the concept of using challenging security questions. INTRODUCE the concept of phishing scams, and explain the sophisticated and deceiving nature of these criminal acts.

STEP 2: DEMONSTRATE THREE TYPES OF PRACTICES TO MINIMIZE THREATS

The in-class exercise for this module focuses on developing students' awareness and ability to identify potential safety threats, and some standard countermeasures to reduce them. Using examples that are interesting to the class (possibly related to some of their own stated concerns), DEMONSTRATE the following:

1. **DEMONSTRATE how to create a secure password. Play a pre-selected video on password security. Some suggestions:**
   https://www.microsoft.com/en-gb/security/pc-security/password-checker.aspx **(Common Craft)**
   http://www.youtube.com/watch?v=nyP2BcP4uoo **(Googolplex)**

Discuss students' reactions or questions from the video.

Next, DEMONSTRATE how to check for a password's level of "strength". Suggested format: Ask the students to list some possibly weak passwords and then compare to the list of 25 worst (most common) passwords of 2012, provided below.

25 MOST COMMON (WORST) PASSWORDS OF 2012

source splash data, INC

Discuss results and students' ideas about weak & strong passwords. Topics to fuel discussion could include: 1) Minimum and maximum lengths of passwords 2) Can two people have the same password 3) The terms "user name" and "user id" and how they are associated with passwords.

1. password	8. dragon	15. master	22. Michael
2. 123456	9. 11111	16. 123123	23. ninja
3. 12345678	10. monkey	17. welcome	24. Mustang
4. abc123	11. iloveyou	18. shadow	25. password1
5. qwerty	12. trustno1	19. Ashley	
6. monkey	13. 1234567	20. football	
7. letmein	14. sunshine	21. jesus	

Now, login to Microsoft's "Password Checker" program:
https://www.microsoft.com/en-gb/security/pc-security/password-checker.aspx
And as you enter some sample passwords, tell the students the combinations that you are trying as the strength meter moves from "weak" to "strong" to "best" (Think out loud).

Then, have the students follow along and try their own ideas for passwords. Discuss results and review key ideas about passwords
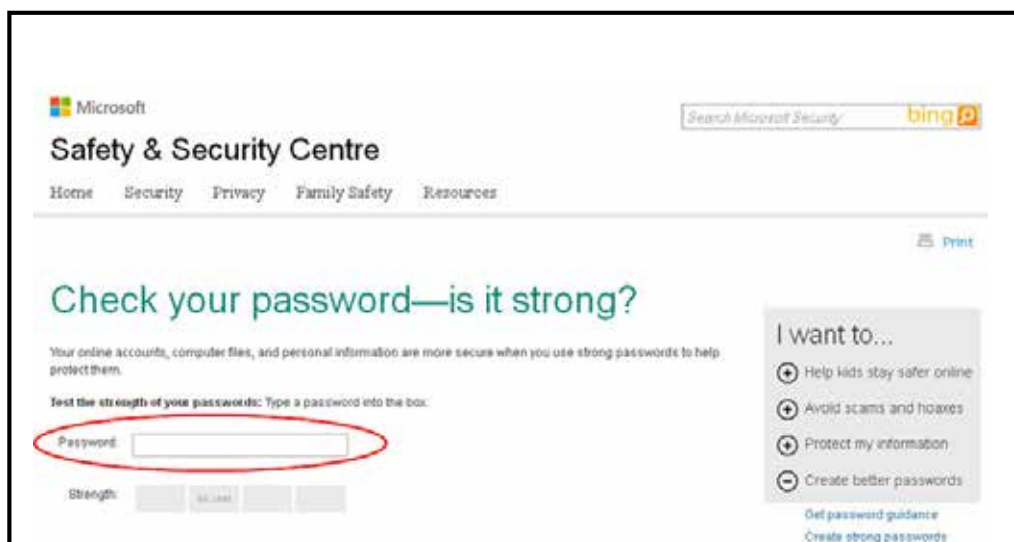
2. **DEMONSTRATE the use of Security Challenge Questions and the reasons for their use.**

   · http://en.wikipedia.org/wiki/Security_question
   · http://www.goodsecurityquestions.com/
   · http://www.youtube.com/watch?v=jTBL1kOzs2s (video)

Discuss students' reactions and questions.

Provide some examples of good and poor security questions, and then ask the class to add to each list.

GOOD — Answers that will not change over time and are not easily researched

• In what city did you meet your spouse/significant other?
• What is the name of your favorite childhood friend?
• In what city or town did your mother and father meet?
• Where were you when you had your first kiss?

POOR — Answers that are fairly easy for others to know or research

• What is the name of the High School you graduated from?
• What is your pet's name?
• In what year was your father born?
• What is your mother's maiden name?

Have students write down a few good security questions they might want to remember

3. **DEMONSTRATE how to identify a Phishing Scam and some best practices to prevent or neutralize this type of threat. Discuss what "Phishing" means. You can play this great 3 minute video on Phishing:**
   http://www.youtube.com/watch?v=wSoXBOOK65Q
   Discuss with the class some of the basic ground rules for avoiding phishing scams:

• Don't email personal or financial information. Email is not a secure method of transmitting personal information.

• Do not click on links in emails or reply to suspicious emails… independently open a browser and type in the Website address. This way, you control what sites you visit. Do not let a phisher direct you to a false site.

• Only provide personal or financial information through an organization's Website if you typed in the Web address yourself and you see signals that the site is secure, like a URL that begins with https (the "s" stands for secure). Unfortunately, no indicator is foolproof; some phishers have forged security icons.

• Be very cautious about opening attachments and downloading files from emails, regardless of who sent them. These files can contain viruses or other malware that can weaken your computer's security.

• Be cautious about email messages that come from people or places you do not know. They could be "Phishing" for you. Scammers sometimes use mail or contact lists that are not protected — be sure that you know who you are getting email from.

- Be cautious of messages with no subject, or messages that are too general — they could be phishing for you. If you suspect that a friend did not send a message, email them in a separate message and ask. Sometimes other's email addresses can be "pirated" by scammers.

Provide a few examples of phishing emails that you can show on screen or provide handouts, here are three examples
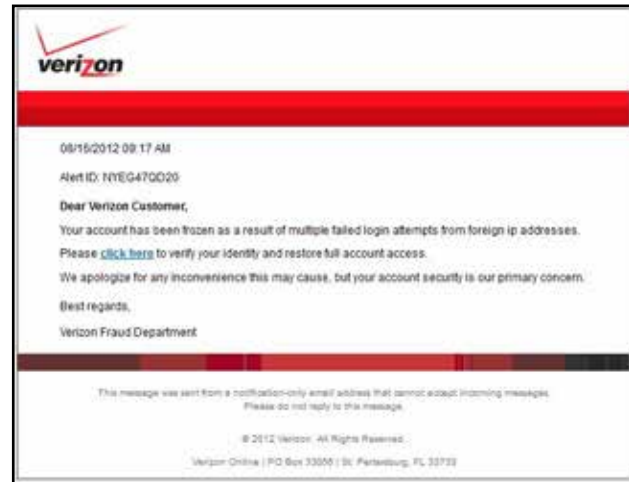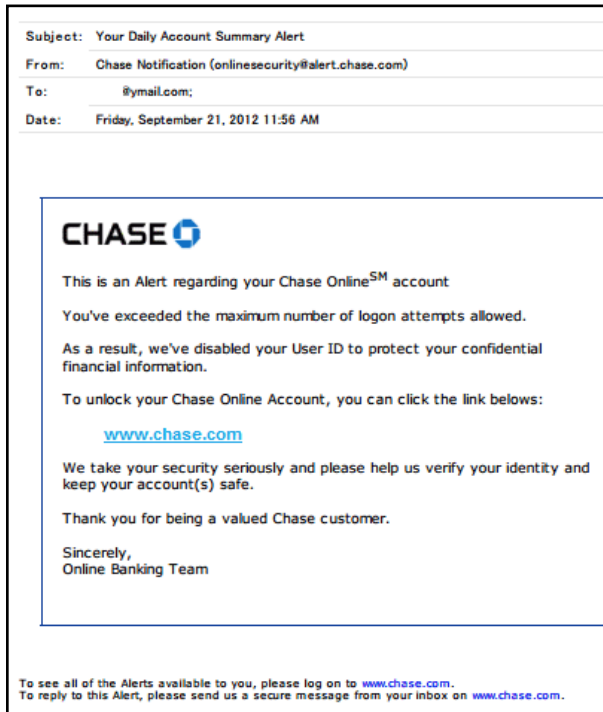
STEP 3: CLASS DISCUSSION OF SAFETY & PRIVACY PRACTICES

Ask students to DISCUSS the examples provided above or that you have prepared before class. Ensure the discussion includes suggested best practices to guard against the demonstrated threats.

MODULE 4B: Internet Safety and Privacy Basics
Instructor Lesson Plan

STEP 1: INTRODUCE AND ASK

Begin Part 2 by INTRODUCING students to some additional realities of Internet safety and privacy; specifically what the differences are between publically available and private information.

- INTRODUCE the concept of public Websites and private/secure Websites.
- INTRODUCE the concept of http: vs. https:
- INTRODUCE the concept of logging OFF public/shared computers and Wi-Fi networks
- INTRODUCE the concept of Parental Controls
- INTRODUCE the concept of malware (viruses, worms, & Trojans)

Then, ASK students to react to examples that you provide. Discuss their ideas.

STEP 2: DEMONSTRATE THE THREE TYPES OF PRACTICES SHOWN BELOW TO HELP KEEP PRIVATE INFORMATION SECURE

The in-class exercise for this module should focus on developing students' awareness and ability to identify public vs. private information, and how each affects user privacy.

A suggested analogy to share with the class would be how public information online is like reviewing personal information in a bank lobby, compared with using a safe deposit box and secure vault room to view financial or important private information. Using examples that are interesting to the class, DEMONSTRATE the following:

1. DEMONSTRATE how to check to see what public information is available on the Internet. Using a search engine like Google, enter terms such as your name, email address, home and work address, and phone number in a variety of ways.
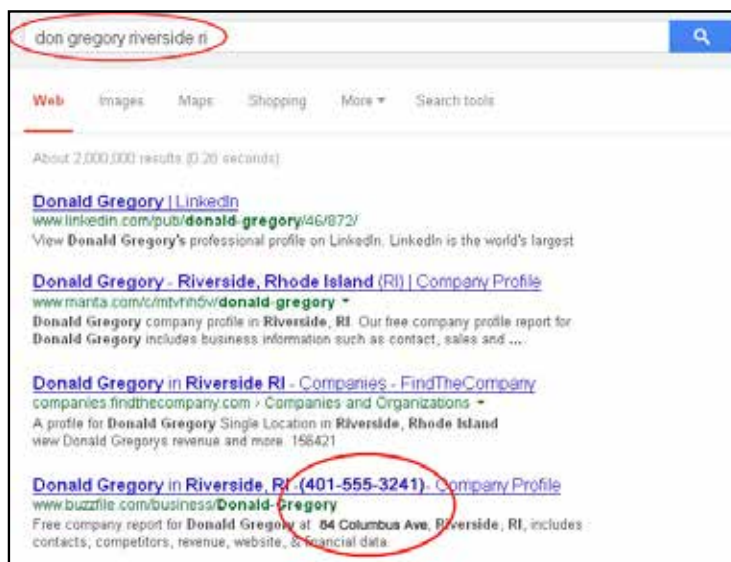
Explain how there are two types of information that exist online. Public data is collected from sources such as the US Census, voter registration, Division of Motor Vehicles, organizational memberships, tax assessor, telephone directories, etc. (The graphic above shows Public data for Donald John Gregory that is available because of voter registration records.) Private data, when entered into a computer, becomes volunteered data. This personal information is anything that you, as an online user, provide via email, Website sign-up forms, Facebook posts, etc. (The graphic below shows an eCommerce sign-up page that is requesting private financial information.)

2. **DEMONSTRATE how to identify whether a site is secure for input of financial transactions or important personal information.**

Before sending any sensitive or financial information online, you want to know that you are communicating with a secure site. Secure sites make sure that all information you send is protected as it travels across the Internet.

Web addresses either begin with http or https. If the address is https (the "s" stands for secure), then the information you are sending is encrypted (secretly coded) and will look like gibberish if intercepted by cybercriminals.
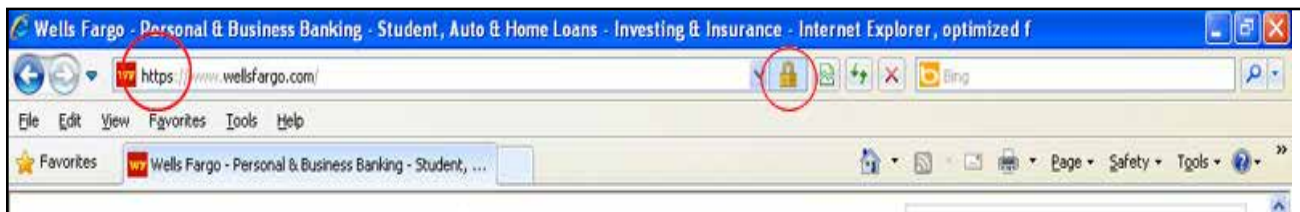
3. **DEMONSTRATE how to log off publicly used computers and Wi-Fi networks and explain the importance of this practice.**

Show how if you fail to sign out of your email account or Website that you were logged into, the next person has full access to all your secure information.

Log onto your Google email account and then minimize your screen. You can then demonstrate by walking away from the computer and then come back to it pretending to be another person and provide some examples of what could happen now that a stranger has access to your Google account:

  • Read your personal/financial information
  • Sending email etc…

Below is an example of how to log off from a public Website.
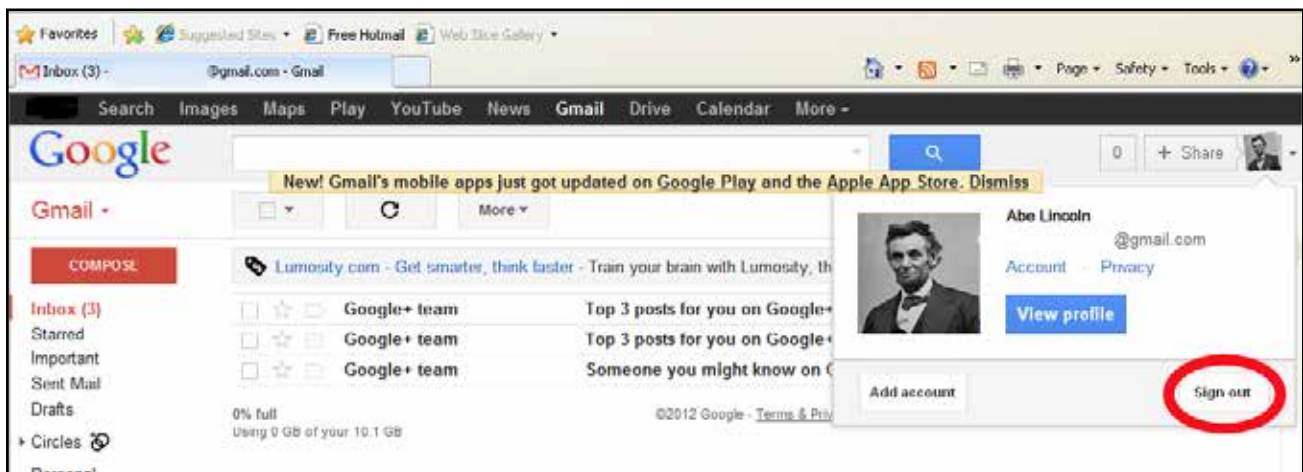
4. **DEMONSTRATE and provide a brief overview of "Parental Controls" and how they are best used to help keep children safe while being online.**

Parental Controls allow parents to monitor and implement learning time into the computing time of children.

For a Windows 7 overview of Parental Controls you can show this video:
http://www.youtube.com/watch?v=NQvusEhpHcY

Discuss students' questions about parental controls..

5. **DISCUSS the three major types of computer malware (malicious software) and what resources are available to learn more about how to safeguard against such threats.**

DISCUSS each (similarities and differences)

  • Virus: malicious software code attaching itself to a host (existing) program
  • Worm: stand-alone software code or program that does not need a host file
  • Trojan: a program that is downloaded and opened that seems safe, but has malicious software hidden inside the code.

DISCUSS prevention measures for each. Three suggested topics are:

1. Update operating system software patches frequently
2. Use anti-malware software
3. Ensure a firewall is installed on your computer.

This topic will usually generate a lot of questions from students relating to their own situations. Consider managing shared experiences with guiding questions like: "Is there one instance when you experienced malware? What was the result?" This should help keep the direction of the discussion on track.

STEP 3: REVIEW AND APPLY

Towards the end of class, recap the 8 practices covered in this module and remind students to keep security and privacy primary in their mind whenever going online. You may also encourage them to review and practice the exercises, at the following links, at home or wherever they have access to a computer.

8 PRACTICES covered in this module:

- Creating strong passwords
- Choosing better challenging security questions.
- Rules to guard against phishing scams
- Check for your publicly available information
- Awareness of http vs. https, and what a secure site provides
- Logging off public computers and Wi-Fi networks
- How to use Parental Controls
- Basic prevention measures for Viruses, Worms, & Trojans

Additional helpful videos and resources on Internet security:

- GCF Learnfree.org, Internet Safety GCF Learnfree.org,
- Beyond Email, All About Communicating Online
- Microsoft's How to create strong Passwords
- Onguardonline.gov, Online Security and Privacy Site

DISCLAIMER

Internet Safety and Privacy is a serious and extensive subject. By accessing, viewing, or otherwise using any of the information created, collected, compiled and provided here, you agree to be bound by these terms and conditions. The information provided here is intended to be an overview and introductory guide for instructors on how to address the topic with your students. In providing this information, we have attempted to be as accurate as possible. However, we make no claims, guarantees or promises about the accuracy, currency, or completeness of the information provided and we make no express or implied warranties of any kind or nature regarding the information. You understand and agree that we shall not be liable for any type of damages whatsoever whether or not we have been advised of or should have been aware of the possibility of such damages.

MODULE 5: Review and Capstone Class

Instructor Lesson Plan

PRE-CLASS PREPARATION TIPS

- Print out any handouts or visual aids you plan on using.
- Make sure that the browsers used on all computers are set to the same homepage, preferably Google or another search engine.
- Go through any examples that you plan on using before class to make sure that the information you are presenting is current.
- Do a "tech check" of all equipment to be used during class to make sure all devices are working properly.

1. DECIDE ON A CLASS STRUCTURE: Module 5 allows the instructor the flexibility to review and build on the skills taught during Modules 1-4 in a way that advances students' goals or a particular organizational goal. Due to the wide range of contexts that basic Internet training takes place in and the varying progress that students in any particular class are likely to make, there is no prescribed lesson plan for Module 5, but many instructors will follow one of the following common approaches (or a combination):

    A. Comprehensive Review and Self-Directed Project: Using the skills chart in Appendix A and taking into account your students' experience to date, you may choose to conduct a comprehensive review of the skills covered in Modules 1-4, and spend the rest of the class asking students to engage in a self-directed project. This approach is particularly useful for classes that need more help.

    B. Advanced Topics and Techniques: For classes that above average progress have been made, Module 5 may serve as an opportunity to demonstrate and practice more advanced browser and email features, among others. Instructors may choose to allow students to vote on a focus for the class.

    C. Specialized Topics: Module 5 can also serve as an opportunity for organizations or groups who would like to cover a specific Web-based topic in depth while building or drawing on the skills taught in Modules 1-4. (For example, librarians can use Module 5 time to cover the Web-based library catalog, or a job instructor can use it to demonstrate job databases.)

This lesson plan offers suggestions and resources for the three approaches above.

APPROACH A: COMPREHENSIVE REVIEW AND SELF-DIRECTED PROJECT

STEP 1: REVIEW KEY SKILLS

Before class, review the skills chart in Appendix A and/or prior lesson plans and assess how well your students have learned course content. Decide whether you'd like to review all skills, or whether you'd like to review select skills. Then REVIEW these skills in class by using examples already covered, or examples of particular interest to the class.

STEP 2: INTRODUCE

After reviewing key skills, INTRODUCE the in-class exercise. Explain to students that the exercise will involve them selecting a topic of individual interest to them, and then selecting a research/information goal that they can reach within the remaining time in class.

For example,

- Student A:
  - Topic: "I'd like to find out what this Twitter thing is all about."
  - Goal: "I'd like to tweet a thing or two."
- Student B
  - Topic: "I'd like to be able to find a job."
  - Goal: "It'd be great if I could find a position or two that I could email to myself and apply to later."

Once each student has selected a topic and a goal, ask them to put together a mental or written plan to reach their goal. The plan can be as basic as identifying a Website or two from where to begin their search, or it can be as sophisticated as writing down an outline of some sort. The goal here is to further develop the habit of "thinking before searching."

STEP 3: APPLY AND PROVE

Once each student has formulated a plan, he/she should APPLY their skills and begin their search. Instructors should take a hands-off approach, walk around the room and let each student do their work, providing help as requested. The bulk of classroom time should be devoted to this stage. Once the goal has been reached, students should write their instructor an email summarizing their results to PROVE that they have reached their goal and learned the skills of the course. If a student successfully achieves his/her goal, then he/she should be encouraged to start another exercise that can be completed within the time remaining.

APPROACH B: ADVANCED TOPICS AND TECHNIQUES

STEP 1: REVIEW KEY SKILLS

Before class, review the skills chart in Appendix A and/or prior lesson plans and assess how well your students have learned course content. Then REVIEW in class those skills that students have not learned well, or that the students themselves feel they need more help with.

STEP 2: ASK

After reviewing the necessary basic skills, ASK students which advanced topics they'd like to cover. Write the suggestions down on a whiteboard or on a projected computer screen for all to see, and order them from least complex to more complex. Maybe add: Instructors can ask students to think about what advanced topics they'd like to learn more about at the end of Module 4, so that the instructor has some time to research and prepare.

STEP 3: DEMONSTRATE

Depending on time, interest in each particular topic, and students' skill level, DEMONSTRATE the topics requested in a logical order.

STEP 4: STUDENT DEMONSTRATION

After your own demonstration of each skill, have each student demonstrate it back to you or to a classmate. Then demonstrate the next skill, have them demonstrate it back, and so on.

APPROACH C: SPECIALIZED TOPICS

STEP 1: REVIEW KEY SKILLS

Before class, review the skills chart in Appendix A and/or prior lesson plans and assess how well your students have learned course content. Then REVIEW in class those skills that students have not learned well, or that the students themselves feel they need more help with.

STEP 2: INTRODUCE AND EXPLAIN GOAL(S)

After reviewing key skills, INTRODUCE the Website, Web application, or Internet tool that you are focusing the class on, and EXPLAIN THE GOAL(S) that you have for the class.

STEP 3: DEMONSTRATE, DEMONSTRATE (BACK), PRACTICE

After introducing the topic(s) for your specialized class, use the DEMONSTRATE, DEMONSTRATE (BACK), PRACTICE model to guide students through your topic. Whenever possible, present your topic in a manner that maps the overall flow of Modules 1-4 and that covers navigation, search, communication, and exploration/application skills.

APPENDIX A: Core Skills Chart

Instructions: Use this chart as a guide to structure your classes and determine progress. After the completion of each module, students should be able to demonstrate the following minimum skills:

MODULE	CORE SKILL #1 NAVIGATION	CORE SKILL#2 SEARCH	CORE SKILL #3 COMMUNICATION	CORE SKILL#4 EXPLORATION & APPLICATION
0: MOUSE AND KEYBOARD	• Operate mouse or-trackpad without seri-ous difficulty • Operate a standard keyboard without seri-ous difficulty	NA	NA	NA
1: BROWSERS & WEBSITES	• Identify key features of a browser • Access Web pages of interest by entering their URLs • Identify links on a Webpage	• Identify browser search box and conduct simple text searches • Identify Website-search boxes and conduct simple text-searches	• Identify Web forms and email addresses on Web pages as starting points of Internet com-munication	• Identify and access Websites of interest
2: SEARCH	• Use additionalbrowser featureslike tabbed browsing • Understand how-browser navigation complements Webpage navigation features	• Use Webpage navi-gation/browsing as a search method • Identify and use key parts of a Google search results page • Distinguish basic differences between content found in Google, databases, and Websites	Identify basic tech-niques to collect and transmit information found online • Identify basic meth-ods of Internet com-munication (email, chat, etc.)	• Formulate basic-searches relating to topics of interest
3: EMAIL BASICS	• Use a browser within a Web application en-vironment (as opposed to purely content-based sites)	• Formulate more com-plex text searches • Use a combination of navigational, orga-nizational, and search techniques to find information	• Communicate simple messages via email • Understand safety and security issues	• Communicate re-sults of navigation and search skills via email
4: SAFETY & PRIVACY BASICS	• Identify key Security features of a browser. • Understanding of the difference between an http: and https: site.	• Use methods of creat-ing strong passwords and security challenge questions.	• Use proper email etiquette • Understand how to identify and reduce the risk of phishing scams	• Identify suspicious sites, links and emails
5: REVIEW AND CAPSTONE	• Demonstrate all key skills covered in Modules 0-4 and how they can be applied to gather and communicate information to a topic of personal interest.			

GLOSSARY OF TERMS
Key Concepts and Vocabulary Terms

Module 0: Mouse and Keyboard Evaluation

Mouse — A mouse is a small tool (or device) connected to a computer that the user pushes across a flat surface in order to (electronically) point to a place on a computer screen. It also has buttons to click and select things on a computer screen.

Keyboard — A keyboard is the main tool (or device) used to type (or input) text into a computer. It also has special keys (such as Escape, tab, arrows, shift, and control, etc.) that help the user to do other things (functions) on the computer.

Track pad — A track pad is a flat area usually found in front of the keyboard on many laptop computers. It is used to control how the pointer (or cursor) moves on a computer screen, and is an alternative to using a mouse. It also has buttons to click and select things on a computer screen.

Module 1: Internet, Browser, and Website Basics

Address Bar — An address bar is a location (or "window") near the top of the computer screen that is blank, and when you click on it, the cursor shows up and you can start to type from your keyboard. When you finish typing and click "enter", the computer knows that you want to go to that "address" and takes you there. The new location will show up on the screen.

Browser Menu — Each web browser has a "menu" that shows what different choices are available when using that browser. This menu can use words, tabs, or even buttons to show the different choices that for each browser.

Cursor — The cursor is the location on a computer screen where things that are typed show up on the screen (we sometimes call what is typed "input"). It is usually marked by a blinking "I" bar, but can sometimes take other forms, like an arrow, or a hand.

Link — A link is a "clickable" connection between one word, picture, or information location and   another. It usually appears in a different color from the text, or it could be underlined. When you use the mouse or trackpad to "click" on a link, it takes you to a new location on the screen.

Navigation Bar (of a website) — A navigation bar is an area on a webpage that has links to other sections of the website. Usually, the navigation bar is part of the main website design, and it is displayed on most, if not all, pages of the website.

Search Bar — A search bar is an address bar that is located on a web browser. When you type into the search bar and click "enter", the computer searches the Internet for what has been typed.

Scroll Bar — A scroll bar, usually found at the far right side of the computer screen, is used when the contents of any site on the screen is too large to be displayed entirely within the window. It contains a button that slides up and down, displaying different parts of the

information on the screen, by clicking and dragging it with the mouse or trackpad.

URL (Web Address) — A URL is the address of a specific Web site or file on the Internet. The initials "URL" stand for "Uniform Resource Locator." URLs contain prefixes (at the beginning) and suffixes (at the end) that indicate the type of web resource, as well as information about the URL's location.

Web Browser — A Web browser (or sometimes called simply a "browser"), is a computer program that is used to access the World Wide Web (also known as the "Internet"). Several different web browsers exist, but they all work in a similar way to help you access the Internet.

Module 2: Internet Search Basics

Advertisements — Businesses pay to put advertisements on different pages of web browsers, so that their products will be seen by computer users. Advertisements are located in shaded areas on the webpage, so that users can tell the difference between the free information they have searched for and the advertisements.

Browsing (a website or search results) — Browsing is the process of using a web browser, or "browser", to search for information on the World Wide Web, also known as the Internet.

Back/Forward Button — The back/forward button, usually located in the upper left corner of the computer screen when you are using a web browser, allows you to move forward and backward through webpages that have already been visited. The back/forward button appears as two arrows (one for moving backward, the other for moving forward). The arrows are active and "click-able" when they are lit up, otherwise they will not do anything when clicked.

Copy-and-paste — Copy-and-paste is the process that allows you to select a particular piece of text, data, or image on the computer screen, copy it, and paste it in a new location. Many different software programs (such as word processing programs, photography programs, and others) allow you to copy-and-paste. The functions of copying and pasting can usually be found using the edit tab in the menu of the program, or by using keyboard shortcuts.

Database — A database (on the computer or Internet) is a program that organizes and stores information so that it can be easily accessed later. Practically all online product (or commercial) sites use databases to store inventory and customer information. An on-line (web-based) database allows data to be easily searched, sorted, and updated.

Facet — A facet is one of the words in the special menu located at the left side of the computer screen when you are using an online database. Facets are used to narrow your search results and to make searching easier.

Forms — A form is used online as a way of gathering personal information from Internet users, so that the user can access the information and/or the services of the particular Internet site. It is important to be sure that any information provided on a form will be safe, so you should be sure that the site address has https:// at the front.

Home Button — The home button is located at the top of the webpage, on either the right or left side, and looks like a house. Every computer can be set to an individual home page — the page that appears every time the browser is opened. You can change your home page through the control panel. When you click the home button, it will take you directly to the home page for the computer you are using.

Related Searches — Related searches appear at the bottom of the webpage when you have searched for a specific term or item. The web browser you use will try to "predict" the other terms or items that are related to what you are searching for and that you may be interested in, and will show these as "related searches".

Search Box — A search box is an area that appears at the top of the computer screen when you are using a web browser or a database program. It usually appears as a "clickable window", which means that when you move the cursor there and click it, it allows you to type in whatever you want to search for.

Search Engine — A search engine is a program that indexes and organizes the enormous amount of information that is available on the Internet, so that it can be searched for and found easily by using key words and phrases. Some of the common search engines are Google, Bing, and Yahoo.

Search Results — After entering the words or phrases that are being searched for in the search box and clicking to activate the search, the search results will appear on the screen below the search box. These results will contain an underlined title and additional information beneath. By clicking on the underlined title, the webpage for this search result will appear on the screen. By clicking on the numbers at the bottom of the screen, the program will move to the next page of search results.

Tabbed Browsing — When using a search engine, you can "right click" (using the mouse or trackpad) on any item in the menu and then can choose to make this item a "tab" at the top of your screen. Once an item is a tab, you can do tabbed browsing, clicking on tabs to move from one item or page to the next.

Module 3: Internet Communication (Email Basics)

Archive — An archive is a special file that contains a number of different files, or folders containing files. It is commonly used to back up data, or to send multiple files from person to person. The term archive can also be used to describe the process of creating an archive.

Compose — The word compose means to "create" or to "write". When using an email program, you will find a compose button in the main menu area of the program. When you click on this button, you can compose a new message to send using email.

Email — The term email means electronic mail, the process of sending text and other communications electronically from one computer user to another, instead of using standard mail, or "snail-mail". Many different programs (Outlook, Gmail, Hotmail, etc.) exist for email, but they all work in a similar way, allowing users to send and receive messages, images, and attachments to email messages.

Folders — When storing email messages, electronic folders can be used to save and organize email and other materials. Folders can be logically named, so that it is easy to find the messages and materials inside.

Forward — When you receive a message in email, you may want to share this message with someone else. You can forward (or send) any message by selecting the forward button on the menu bar of the email program. The message will be sent to the person that you want to have it, but it will also stay in your own email inbox.

Inbox — When an email message is sent to you, it automatically arrives in the inbox of the email program you are using. All incoming mail is stored in the inbox, even after you open it, unless you choose to move a message to a different folder for long-term storage.

Login — To login is the process of signing in to your own account or email. To carry out this process, you will need a login, which is a special combination of words, letters, and/or numbers that prove your identity and that you are who you say you are. Usually, you can create a personal login for different sites, something that only you know so that your information is kept private and secure.

Logout — When you are finished using email (or other programs that use a login), you will need to officially logout of the program to be sure that no one is able to get into your personal files. This is especially important when you are communicating with banks or purchasing items online. You should always logout (officially close) whatever the program you are using after you finish, so that your personal information is better protected.

Reply — After you receive an email message in your inbox, select it, and read it, you may want to write back, or reply to the person who sent the message. To do this, find the reply button in the main menu of the email program (while you are looking at the message), click on reply, and type your reply message where the cursor appears at the top of the message, and then click send.

Send — After you write a reply to an email message, it will not go anywhere unless you then click the send button (in the main email menu). When you click send, your reply will be sent to the person who originally sent you the message.

SPAM — SPAM is "junk" e-mail that you have not asked for (is "unsolicited") and that does not come from anyone that you know. It is an annoying reality of using email, and can (at times) contain information that might hurt your computer system. Email programs have filters to identify SPAM and to put it into a separate folder away from your inbox — but sometimes SPAM gets through, or sometimes real messages will go to your SPAM folder (you need to check this folder regularly). Always be careful to check who your email comes from, and don't open messages or attachments that seem strange.

Module 4: Internet Safety and Privacy Basics

Username — A username is a name that is specifically linked to you when you are using a computer or specific computer programs or websites. Many websites allow you to choose your own username when you set up an online account. A username is almost always linked with a specific password. Together, your username/password combination(s) make up your login.

Password — A password is a mixture (or "string") of letters, numbers, and computer symbols that is specific and private to you. You can have more than one password. Passwords are used together with usernames to provide you with a private way to access your computer or many computer programs and websites. Usernames are usually public information, but passwords are intended to be private. For this reason, you should not share your passwords with others, and you should write them down in a private place (in case you forget what they are).

Challenge Security Questions — In case you forget your username and/or your password, many computer programs and websites will ask you to provide answers to challenge security questions that only you would know the answer to (like "in what city did you meet your spouse or significant other?"). The program or website will save this question and the answer that you provide, and if you forget a username or password, you can still gain access to the program when you answer the challenge security question correctly.

Public Data vs. Private Data — There are two main types of data that exist online — public data and private data. Public data is personal information that is found in places that are open for all to search for and look at. Public data comes from sources like voter registration, telephone directories, etc. Private data is personal information that you choose to share when you are online. Private data is often shared through sites like Facebook, or through email or forms that you complete online.

https: vs. http: — The letters "http:" stand for "HyperText Transport Protocol." Websites use this standard http protocol (or "process") to transmit and receive data on the Internet. Sometimes, it is important that the data is private and "secure". When this is true, it is important that the website uses a special protocol called "https:" which stands for "HyperText Transport Protocol Secure". When https is used, the data is secretly coded, so that no one can access it unless they are supposed have access to the information.

Logoff — Whenever you are using a website, or an online program, it is very important that you officially logoff when you finish what you are doing. There is usually a button near the top of the screen that will say "logoff" or "logout". Be sure to click this button before you leave the page or website. If you do not log off, this page (and the information on it) could remain open without your knowing about it, and could be in danger of being "hacked" (or stolen) by others.

Phishing (Scamming) — The process of phishing is similar to "fishing in a lake", but online "phishers" are trying to steal your personal information. Phishers send out e-mails that look real (such as ones coming from places like eBay, PayPal, or even your own bank), but are not real! Phishing e-mails may say that "your personal information needs to be updated", or may ask for your username and password. You can identify phishing emails because they have different URL addresses from the real site. When in doubt, do not click the suspected message. Instead, go directly to the website yourself, by typing in the site's known URL. Inquire if this site sent you a message, and if not, report that you received a phishing message.

Viruses — A computer virus is dangerous computer program that can attach itself to another program and can steal your information or make your computer "sick" (operate badly). It is one of the three main types of computer threats known as "malware".

Worms — A computer worm is a stand-alone program or code that can "infect" your computer and cause it to do thing that you do not want it to do. It can also be used to steal personal information. It may secretly come into your computer through an attachment. It is the second of the three main types of computer threats known as "malware".

Trojans — A computer Trojan looks like a real and legitimate program, but (as in the story of the Trojan horse) has hidden code or software inside it that can make your computer "sick" and can steal your information. It is the third main type of computer threat known as "malware".

Anti-Virus Software — Special programs are available, for free or for purchase, that help you to protect your computer from malware. These programs are known as anti-virus software. Every computer should have some type of anti-virus program operating, so that the information in the computer is protected and not stolen or "infected".

Parental Controls — To protect children from accessing online information that is dangerous or morally questionable, many of the major online browsers and program have built-in parental controls that parents (and others, like teachers, schools, etc.) can turn on. These parental controls, when active, will sort through (or "filter") the information that is coming into the computer from the Internet and will block any questionable information.

Module 5: Review and Capstone Class

Key concepts and vocabulary terms for this capstone class will vary according to instructor's lesson plan and students' needs.